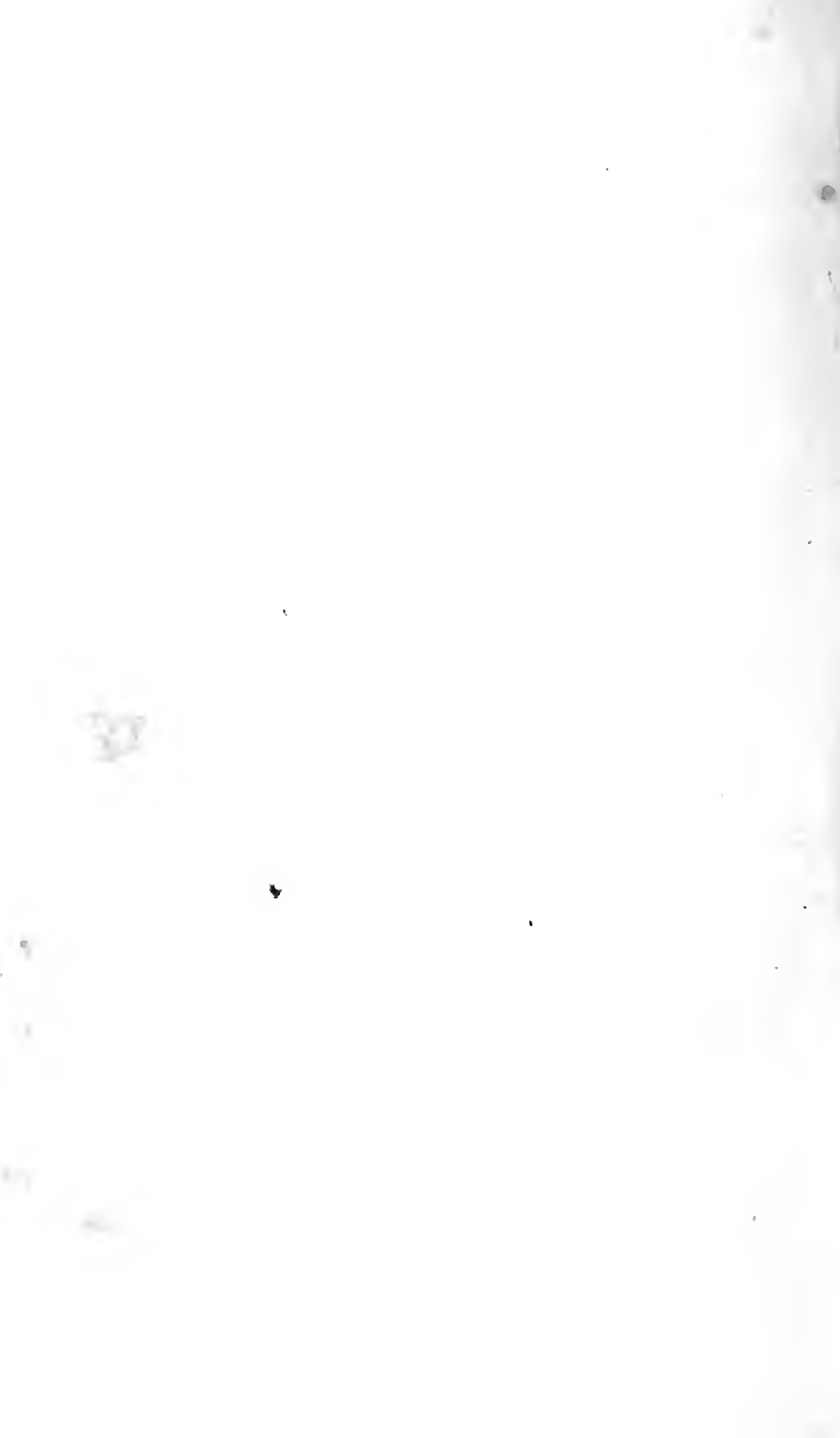


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THE JOURNAL

OF

MENTAL SCIENCE

(Published by Authority of the Medico-Psychological Association
of Great Britain and Ireland).

EDITED BY

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“Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et
radii (ut in sensu fit) coire possint.”

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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"IN adopting our title of the *Journal of Mental Science*, published by authority of the *Medico-Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanician uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—J. C. Bucknill, M.D., F.R.S.

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PART 1.—ORIGINAL ARTICLES.

The Use of Hypnotism among the Insane. By GEORGE M. ROBERTSON, M.B., M.R.C.P.Edin., Senior Assistant Physician, Royal Edinburgh Asylum, Morningside.

Last year I paid a visit to the different schools of hypnotism in France, and I saw hypnotism used as a therapeutic agent in the wards of Professor Bernheim of Nancy, of Dr. Luys at the Charité in Paris, and of Dr. Auguste Voisin at the Salpêtrière. I became convinced of the reality of the phenomena, and of its great value as a therapeutic agent in certain cases, and therefore since my return I have made such use of it as time and opportunity permitted among the female pauper patients at Morningside Asylum. I here give an account of some of the cases I hypnotized and of the various reasons, both therapeutic and otherwise, for which I made use of this agent, and I shall conclude with a brief summary of its uses. I exclude from here, however, all examples of its use for physical ailments.

The method of hypnotizing I adopted, resembles that used by Professor Bernheim. I inform the patient that I have the power of inducing sleep, and obtain the consent and gain the confidence of the subject. I then quietly suggest the feelings of sleep, and gradually close the eyes by passing my hand over the eyelids, and almost always those of my patients whom I could influence fell into the hypnotic sleep in five or eight minutes.

I selected cases who I thought would hypnotize readily, and who did not resist the attempt being made, and if I did not succeed within ten minutes or a quarter of an hour I gave up further trial.

One of the very first cases in which I made an attempt was of a most encouraging nature. This was the case of a woman

who is subject to attacks of recurrent mania, which are ushered in by a long prodromal stage of irritability, excitement, and severe cephalalgia, accompanied by intractable insomnia. My object in hypnotizing her was to relieve this troublesome sleeplessness, and when I decided to do so she had been without sleep for fully a fortnight, excepting on one occasion, when she slept for four hours, after having had 40 grs. of chloral and 60 grs. of bromide of potassium. Lesser doses of these drugs had been tried and had failed to produce sleep, and as the patient refused to take any other hypnotic I decided to give hypnotism a trial.

She occupied a single room without a bedstead, as she was inclined to be excited, and one evening I entered her room and told her I had come to send her to sleep. As she half sat up in bed I told her she would soon feel something from my hand thrilling through her, and that she would drop asleep. In less than two minutes her head fell on her breast, her hands became flaccid, and she was breathing calmly as if asleep. I told her that she was now sound asleep, that she would remain so all right, without hearing disturbing noises, and that next day she would feel much better. She remained in bed as I had left her for six hours, apparently without moving, and next day she felt better, and the headache had improved.

Next night I went to her room at the same hour, and told her I had again come to send her asleep. She was sitting on the floor with all her bedding lying tossed about, and while the nurse was making up the bed I stood waiting, with my hand resting on the patient's head. In a few seconds, much less than a minute, I was astonished to feel the patient's head suddenly drop forward, and on looking I found she had fallen asleep. The fact of her having become hypnotized came as an unexpected shock to me, as I had then no thoughts of hypnotizing her. On the second night she slept for fully four hours.

After this Dr. Middlemass, one of my colleagues, and I frequently hypnotized her, and as a rule she slept about four hours. Soon after this, however, the patient developed more acute symptoms, and the hypnotic sleep lasted an uncertain and much shorter time, so we gave it up.

Although sleep was produced in this case when the brain was needing it badly it did not stop the attack of mania from coming to a head, for it ran its usual course from first to last. It is possible the hypnotism was tried at too late a stage.

Voisin remarked to me that some cases of slight mania hypnotize most readily, and it would appear that this case of

mine confirms this opinion, for one cannot conceive a case hypnotizing more readily than this woman did on the second occasion, when she was hypnotized by me unconsciously. It would seem that at a certain stage of simple mania attention is easily aroused, and the imagination is brilliant, so that the suggested sensations of sleep are vividly felt, and the hypnotic state is thus readily produced.

I may add that when this patient recovered from this attack of mania she was conscious of what I had done, but she said I no longer had this mysterious power over her. I have since tried three times to hypnotize her, and I have failed to obtain satisfactory hypnosis.

Another case, which hypnotized with very great readiness, was that of a woman at the climacteric, who suffered from hypochondriacal melancholia. She was a very excellent example of this type of mental disease, and imagined she suffered from all the ills that she was acquainted with. She had slight dyspepsia, but she asserted she had cancer or some other deadly disease; she also had slight cardiac trouble, but she continually believed she was on the point of dropping down dead. She was in a run-down condition, and complained of pains and aches in all the regions of her body. She was reasonable on most topics not connected with her health, but her mind was so controlled by the idea that she was an exhausted, dying woman that she refused to attend to herself or to the duties of her household. Her mother had also suffered from the same symptoms when she reached the climacteric.

As this woman's delusions were numerous and fleeting I thought that if she became hypnotized I might remove them by suggestion, as I believe such cases offer more hope of cure by this means than delusions of a more fixed nature. The patient, I found, hypnotized readily, and when asleep I assured her positively that each of her ailments had disappeared. She awoke from sleep feeling much happier and stronger, and thanked me for the good I had done her. This treatment went on almost daily for about six weeks, and there was an uninterrupted, steady progress towards complete recovery. It must, of course, be conceded that in some measure this happy result was due to tonics, good feeding, occupation, exercise, and amusements, with the absence of all domestic worries, but the marked improvement after each hypnotization could not possibly have been without a very considerable effect also. Even if it did not directly tend to recuperate the body and

brain, which from recent experiments I believe possible, there can be no doubt that by increasing her temporary well-being it enabled her to occupy and amuse herself better, and thus indirectly it must have aided in her recovery.

It was noticed in her case that in the waking condition if I tried to persuade her that her fancies were unfounded she would argue, and held to her beliefs more strongly, but when she was hypnotized she was most deferential and never contradicted me, but hurriedly accepted my opinions unreservedly and instantly. This, of course, greatly assisted me in giving suggestions, and she also gradually became easier to hypnotize, though she always regarded the process as a disagreeable necessity. She made a perfect recovery, and has since remained well.

A class that I have found to be very susceptible to hypnotism has been that of the comparatively sane epileptics, who, when they are having a bout of fits, may be violent and excited, but who in the intervals between these bouts are quiet and sensible. These patients often complain of headaches and confusion, and I have frequently dispelled these. For example, a case I had previously hypnotized very many times, had during twenty-four hours suffered from several fits. She was confined to bed, and when I saw her she was very dull, complaining mournfully of the fits, and of the exhaustion, headaches, and great confusion of mind they produced. I told her I would remove all these, and hypnotized her. I told her that all her troubles had now gone and that she would waken bright and well; that she must get up after I left, and be particularly active and busy. I left the patient, and when she awoke about a quarter of an hour afterwards the first request she made was to be given her clothes, and when the charge-nurse dissuaded her from getting up she insisted on it, and demanded her clothes. She was now as cheerful as she could possibly be, and spent the day in a busy and useful manner. No one could help being impressed with the complete change in this patient's emotional and intellectual condition, and I saw a similar change in one of Dr. Voisin's cases.

My patient was evidently labouring under a slight functional depression of a temporary nature, such as any strong natural stimulus, as of sudden joy or of anger, might also have dispelled, yet it is of some value that we should possess the power of effecting this with such facility by hypnotism.

I have also many times hypnotized excited patients, and put them to sleep for the sake of peace and quietness. For

example, we have a patient who has suffered from simple mania for over a year, who has many delusions, and who is subject to attacks of considerable excitement and violence. Owing to a marked inequality of her pupils and a paretic expression of the face she is now regarded as probably being a case of general paralysis. I have several times hypnotized this woman when she has been suffering from one of her outbursts of violence, destructiveness and noise, and sent her to sleep for periods varying from a quarter-of-an-hour to two hours. At the termination of her sleep she would, as a rule, awaken in a quieter frame of mind, with the impulsive outburst blown over. This woman has a personal regard for me, as the result of some delusion, which enables me to hypnotize her with great facility, even when very excited, but no permanent good has resulted from my suggestions to her.

We have another case of recurrent mania, with a periodic relapse at every month, when for several days she is restless, tricky, talkative, and very annoying to her neighbours. I have hypnotized her on these occasions, and let her sleep for a short time. No lasting benefit was obtained in this case, and we have since used sulphonal, with excellent results, completely suppressing these recurrent attacks.

In a third case, one of puerperal mania in an adolescent who had quieted down, but who was subject to hysterical emotional attacks, I have also used hypnotism. She would sob, scream, and throw her limbs about, and on these occasions I would send her to sleep for several hours. By this means the attacks would be cut short, and she herself and her neighbours would have peace and quietness, whereas otherwise the attack would last for hours. These hysterical attacks occurred at monthly intervals, and on several occasions they passed into sharp attacks of simple mania of a short duration, and I have grounds for believing that suppression of these emotional crises by hypnotism, on some occasions, may have enabled the patient to pass a critical period without lapsing into mania.

I also make use of hypnotism for the same purpose in the case of an excited epileptic. This woman is one of those evil characters who are more bad than mad, and who had lived a vicious, uncontrolled life outside, till her bad temper, aggravated by drink and the epileptic diathesis, brought her to the asylum. She would remain comparatively quiet for several months, and then the evil and the suppressed excitement within her would come to a height, and, exploding, would vent itself in destruction of property and injury to

individuals, or else it would disappear after an epileptic fit. I hypnotized this woman several times during quiescence in order to make her an easy subject, as I felt that she was a suitable and desirable case to control by this means when the emergency should arise. Whenever she is in one of her violent and excited moods now I hypnotize her, and suggest to her that she is not to feel nervous and irritable, that she is to control herself and be quiet, and, as a rule, I let her sleep for an hour or two. I have several times done this with marked advantage, and she has awakened in a much sweeter frame of mind. The last time I hypnotized her she was labouring under intense excitement, and had, out of sheer desire to do violence, wrenched off the door of a cupboard and the iron fastening of a shutter when no one was near; she had also come to blows with several people, and was scolding at the top of her voice. I said I would hypnotize her, and to this she always objects; but I insisted on it, and although she protested, she went deeply over. I told her to be quiet and to sleep till tea-time, which would be about five hours later. Unfortunately at the end of two hours she was wakened by a patient who had entered her room, but she awoke calm, and remained quiet all the afternoon. In the evening, however, something again set her up, and she became extremely violent and abusive, but now, strange to say, she refused positively to go to sleep, and so, after five minutes' trial, I gave it up. This is the only occasion on which I have failed with her, and I think it was because the excitement had reached too high a pitch, for during the night she became acutely maniacal, and required seclusion next day. It remains a question for speculation whether the attack, like others, might not have been prevented from developing had she been allowed to sleep all the afternoon.

This case is also interesting, as showing on another occasion what may happen from carelessness on the part of the hypnotizer. She had complained to me of rheumatic pains in her legs and lameness, and after I had removed the pains by suggestion, I told her that when she awoke she had to run *up* and *down* the ward, meaning by this only once. I gave her this suggestion to demonstrate that all the lameness had disappeared. I left, and in a few minutes she awoke in a slightly sleepy condition, and then made a rush down the ward. In a few minutes she made a rush back again, and then she carried out this suggestion all the afternoon, being in a somewhat peculiar mental state, as if she wondered why she was doing

this. Had I been informed of this at the time I should have re-hypnotized her and put a stop to it, but I was not told till next visit. I think, however, this demonstrates that suggestion to hypnotized patients should be very clear and simple, especially in dealing with the insane, that it is preferable to see your patient thoroughly awake before you leave, and that suggestions in the hypnotic state make a deep impression.

As demonstrating the power of hypnotism, if not its therapeutic value, I shall describe the use I have made of it in probably the most unmanageable female case that has been in Morningside for ten years. A good criterion of the great difficulties connected with this case is the fact that she is the only person that I have seen, during five years' residence here, mechanically restrained, except for surgical reasons. She is a well-developed woman of 25, with an insane heredity, who has led an exciting and fast life. She was married, and a mother when she was fifteen. She has been on the stage, and has probably indulged to excess. She is now subject to the most frightful outbursts of suicidal and homicidal violence, accompanying a state of acute mania. These outbreaks occur very suddenly, with only a few hours' warning, usually at monthly intervals, and the attack lasts about three weeks, gradually passing away. In the intervals between the attacks she is quiet and reasonable, though her power of self-control is very poor. As in a former case, I practised hypnotizing this woman when she was quiet, and found that she went over with ease and fairly deeply, as she had no recollection of what happened in the hypnotic state.

I first made use of hypnotism in her case for the sleeplessness which troubles her in a certain period of the mental cycle, and she would thus sleep all night. At this stage she was usually fairly sensible, and when hypnotized I had considerable command over her. For example, I have closed her eyes and told her it was impossible to open them, and she has been unable to do so, though on one occasion I believe she rubbed them with saliva for two hours to remove the "gum that was fixing them." I have next hypnotized her very often in order to get her to take sulphonal. On account of her violence and homicidal tendencies it is often necessary to keep her well under the influence of sulphonal, but as she knows from long experience the exact effects of this drug she will not voluntarily take it. It would be possible, at the cost of much ill-feeling, with the assistance of several nurses, to give her this with the nasal tube, but I find it so much simpler and pleasanter for me afterwards

to hypnotize her, and then order her to take it. She invariably does this, believing sometimes that it is brandy, sometimes sugar, and sometimes medicine. When she awakes two minutes after she has absolutely no recollection of what has happened, and indignantly refuses to touch sulphonal, which she asserts she has not taken for months. I suppose, however, I have gone through this performance at least three dozen times, and some of my colleagues have also done it.

The most dramatic and convincing exhibitions of the power of hypnotism have, however, occurred on the three or four occasions in which I have hypnotized her against her will, in the acme of her excitement, when she required to be held by four nurses. On these occasions her homicidal and suicidal violence and excitement are so great that it is absolutely necessary to restrain her either by physical means or by powerful drugs, and it is impossible for the nurses to hold her for any length of time. Before I tried hypnotism I used to give her $\frac{1}{16}$ th grain of hyoscine hypodermically, and then three or four hours afterwards 30 to 60 grains of sulphonal through the nasal tube, the first to quiet the excitement immediately, and the second to keep her quiet when once she is so. I still adopt this plan occasionally, but I have instead several times hypnotized her and ordered her to take a very large dose of sulphonal, varying from 45 to 75 grains—usually 60 grains—which from long observation in her case we know she can stand perfectly. As a result of this in an hour or two she gets drowsy, and by evening she is lethargic and sleepy. On these occasions as she is so violent she has, of course, to be held by several nurses while I send her asleep. She shouts that she won't let me do it, and repeats to herself "I won't go to sleep" over and over again. I close her eyes—often with great difficulty on account of her struggles—and order her to sleep. I then pretend to observe the symptoms of drowsiness, and say to the nurses in an aside remark that is intended for her that she will soon be asleep, and after about three to five minutes—which is longer than usual with her—she becomes hypnotized, remains perfectly quiet, and will do whatever I tell her. Should any medical sceptic see such a demonstration of the power of hypnotism he could not possibly desire further proof, but, of course, it is impossible to arrange these exhibitions, for they only occur on an emergency. On one occasion in my ward visit with Dr. Clouston I hypnotized her in this excited state. As I have already mentioned, it has been necessary on a few occasions to

put this woman into mechanical restraint. To effect this was always a work of supreme difficulty, but when she is hypnotized I tell her I want her to try on a new dress, and she does so immediately with great willingness, often passing uncomplimentary remarks about its shape. Excepting in the treatment of the insomnia hypnotism has been of no direct therapeutic value in this case, though it has lessened the difficulties connected with the management very considerably. Any suggestions towards improvement of her conduct which I have addressed to her in the hypnotic state have not appeared to influence her in the slightest.

There are several facts of interest from a psychological point of view connected with this case which I may mention.

In the first place, when she is hypnotized her mind does not come to rest and fall asleep, but like a few other cases she suffers from an active delirium, and a curious thing about this delirium is that whatever her state of mind previous to being hypnotized—whether sane, somewhat excited, or acutely maniacal—the delirium is always exactly the same. Another interesting feature is that this delirium, which I can thus artificially produce, corresponds to her mental state on admission. She talks to herself about being sent to the salt mines in Siberia, about having murdered someone, and about her head being cut off, and these very statements occur in her medical certificates on admission. It would appear that there is a diseased activity in her brain which hypnotism does not affect, and that when the inhibitory forces are taken off it asserts itself, and that when seemingly well hypnotism can thus demonstrate the existence of this latent disease.

In the second place, I find as a rule that the more excited she is when I hypnotize her, the shorter the sleep is, and the less control I have over her. I have already stated that when she is comparatively sane, and I tell her she cannot open her eyes, the suggestion may persist for two hours, but when she is excited it may often not last half a minute. For example, if I ask her to hold her hands together, and keep them down, unless I repeat this continuously, in the morbidly excited state of her brain, she appears to forget the suggestion, and soon raises her hands. I can illustrate this in another way. In her excited state it was very difficult to get out of her room without her getting out also, and for this purpose I would hypnotize her, but very often the moment I took my hands off her forehead she would awaken, and run after me. I found, however, that by calling out "Sleep, sleep," I could leave her at leisure,

but whenever I stopped repeating the word "sleep" she would waken. I suppose the explanation of this is that the morbid excitement in her brain is too strong, and overcomes the hypnotic influence, unless this is constantly exercised.

A third fact I observed in her case was that, whereas a very little sulphonal aided hypnotism, when she was thoroughly under the influence of the drug and had become inattentive, confused, and stupid, I was unable to hypnotize her satisfactorily. A similar difficulty occurs in dementia.

In many other cases which I have hypnotized I have obtained results which were not of a conclusive nature, but of which I am hopeful. For example, the general conduct, the application to work, and the taking of food in several melancholiacs have greatly improved after hypnotization and suggestion; but, of course, we all know that a "good talking to" will often do the same thing, and that, therefore, in these cases there may have been no special virtue in the use of hypnotism. I have no doubt, however, that cases of this nature will occasionally occur in which hypnotism will prove to be of striking service.

I shall now mention some of the peculiarities I have observed connected with the use of hypnotism among the insane. In the first place all acknowledge that the insane are difficult to hypnotize, and as it is out of the question, except for an enthusiast, to go wasting time over failures, for practical purposes one must select only suitable cases. These are, in my opinion, the most sensible and reasonable of the patients, and of those who are excited only those who are still coherent. If such cases are selected I believe that between a third and a half may be hypnotized without spending on an average more than a quarter of an hour over each. I have a decided objection to melancholiacs, except of the simple variety, as their subject consciousness is so strong, and they are so wrapped up in their morbid ideas that, instead of listening to suggestions and becoming hypnotized, they think all the more of their subjective ideas. Even with cases who can be hypnotized one's success varies greatly, and occasionally in an unexpected manner they refuse to become hypnotized. Although most of my patients have gone under fairly deeply, and had no recollection of what happened, still one's control over them is not so strong as over a sane person. The insane patient's intelligence is not so good as that of a sane person, and hence, as must be expected, they do not as a rule take up suggestions so well, nor do these make so great and lasting an impression on

them. The hypnotic sleep, I believe, is also much shorter, on account of the morbid excitement from within the brain rousing the patient, just as in the state of health we may also be wakened out of a normal sleep by a vivid dream.

Having now described the limited use I have made of hypnotism (for I have by no means employed it to its full extent), I shall summarize its uses among the insane.

It may be used firstly as a direct therapeutic agent.

1. *In Insomnia*.—It may succeed in intractable cases where drugs have not succeeded well. Hypnotic sleep, being more closely allied to healthy sleep than is drugged sleep, must be of great service where the brain nutrition is already bad, and the additional effect of depressing drugs is undesirable.

2. *As a Sedative in Excitement*.—It may here be of direct therapeutic value in preventing an outburst of excitement from passing into mania in a brain in a highly unstable condition.

3. *To Dispel Fleeting Delusional States and the Minor Psychoses*.—By means of verbal suggestion in the hypnotic state these lesser degrees of mental derangement have been removed.

In addition to its direct therapeutic uses hypnotism may be used for purposes of management.

1. *To Overcome the Morbid Resistance of Patients for their Own Benefit*.—Patients often refuse to do what is necessary for their welfare, and by hypnotizing them they can be made to do what is desired. I have instanced the giving of medicine, but many other purposes can be thought of. I have lately induced a patient to take food in the hypnotic state when she had required to be artificially fed for a week.

2. *As a Substitute for Restraint*.—In cases of excitement and violence, instead of mechanical, physical, or chemical restraint, we may use hypnotism, which may be described as a form of mental restraint, either alone or in combination with the last. It is, however, uncertain, and not always possible.

Many people from reading highly sensational newspaper accounts of hypnotism, and from the dramatic exhibitions of public performers, expect miracles to result from the employment of hypnotism as a therapeutic agent in insanity, and, of course, such people are disappointed. I do not believe that hypnotism can cure pronounced or advanced forms of mental disease, and I am not hopeful of it even doing good in cases of fixed delusion. I believe, however, that it may be used with advantage for the purposes I have indicated, and that it will eventually have a recognized position as a minor therapeutic agent.

It remains to be said, in conclusion, that although no person could reasonably deny the great good that it may do in individual cases, or the fact that in medical hands legitimately employed with caution it appears to produce no direct harm, yet there may result indirect harm to a community from its adoption, from the frame of mind that it engenders among ignorant and superstitious people. In an asylum, if extensively used, it may increase and strengthen the delusions about hypnotism, and about unseen agencies in general, and we have had one case here who, when she learnt that I made use of hypnotism, although not with her, imagined that all her delusions were confirmed, and became very difficult to manage, if not positively dangerous. This objection, however, may just as legitimately be urged against the use of the battery for electro-therapeutics, or against the introduction of the electric light and telephones in our modern institutions.

The Psychological Examination of Prisoners. By Dr. JULES MOREL, Hospice-Guislain, Ghent.*

I think it is a general rule in all well-organized prisons, that, periodically, the staff holds meetings to take decisions upon the measures to be taken concerning the prisoners whose conduct is not, or has not been, following the regulation of the house.

After each meeting, minutes of transactions are made and sent to the higher authorities, and usually to the Minister of Justice. M. Lejeune, Minister of Justice in Belgium, was struck by the examination of these minutes in our country, and stated that they were almost always the same prisoners of whom complaints are made and against whom disciplinary cautions were taken.

A doubt came to the Belgian Minister, and his Excellency asked himself if these rebellions against discipline were not, in reality, signs of mental instability. M. Lejeune decided to establish a medico-psychological inquiry in one of the Belgian prisons, with the recommendation to pay special attention to these so-called undisciplined. Amongst these, there were fourteen prisoners absolutely unable to submit themselves to the regulations of the house. The examination of their

* Paper read at the Psychology Section of the British Medical Association, held at Nottingham, July, 1892.

mental state proved that, among these fourteen prisoners, there were eight who showed symptoms of such a madness that one was obliged to proceed immediately to place them in a lunatic asylum.

The medico-psychological inquiry was suspended after the examination of 291 prisoners. The Minister of Justice was then convinced that, henceforth, the medico-psychological examination of the prisoners was to be made by special physicians, and created a service of mental medicine. Three alienists were appointed, and each of them has now the charge of the psychiatric service in nearly twelve prisons.

The results obtained since the inauguration of this service in the Belgian prisons are already sufficient to allow us to judge about the importance of the new ministerial decision.

I have thought it of very great interest to make the results known, and, consequently, to conclude that the inconveniences stated in the Belgian prisons very probably exist in all the other prisons of the world.

My aim is to call the attention of the foreign authorities, in order to help and convince them that prisons always contain a certain proportion of insane people, and that it is very important a similar medico-psychological service should be adopted everywhere. I even think that it is no more possible to doubt that this service recently instituted in Belgium, and only applied to the prisoners whose mental state of health seems suspicious to the officers of the prisons, will be enlarged and spread in a short time over all the recidivists for the different kinds of crimes and offences of a certain degree. The aim of the mission of the alienists of the Belgian prisons is to remove and to certify all the prisoners whose physical state is incompatible with the habitual *regimé* of the prisons, to submit immediately to treatment all recent cases of mental diseases susceptible to the necessary care at the prison itself, and giving some hope of a relatively prompt recovery; finally, to call the special attention of the officers of the prisons to all doubtful cases.

If the medico-psychological service could, at a future time, be applied to all the recidivists and all the great criminals, it would offer many and great advantages; it would allow us to make up very complete reports of the mental state of the convicts, and these notes should become of the highest importance.

1st. It would record the psychical deficiencies of the convicts; it would allow us to class these delinquents, and

subsequently to begin an individual treatment, so far as their cerebral power allows it.

2nd. It would allow us, by these means, to make known the undisciplined and those who would simulate mental disease; it would allow us to take the necessary measures to repress their conduct.

3rd. To the guardians, officers, and even to the higher authorities, who wish to have a serious and scientific opinion concerning the convicts under their care and to employ all possible indulgence, it would be very useful, especially when they have to apply either conditional or final liberation, or special measures of protection in their favour when they leave the prison.

4th. The magistrate, instructor, and the judges would be enabled to consult these notes with profit in all cases when recidivists should be brought again before them. As a matter of fact, in most cases these magistrates were unable to form an exact opinion of the psychological state of the old convicts. The examination of the new documents would make it easy to form a more rational opinion of the degree of indulgence or severity with which they should act according to the reformation the old criminals have shown during and after the time of their detention.

We are aware that the natural conclusions of such a psychological examination would be the necessity of a grand reform in the penitentiary system, and perhaps also the revision of certain parts of the penal law.

My experience of the study of the convicts submitted to my examination since the 1st of June, 1891, till the 30th of May, 1892, completely demonstrates the necessity of the reorganization of the treatment of the inmates of prisons. It proves:—

1st. That every prison with a population of, for instance, one thousand or more convicts should have a special ward in which one could take proper care of all the criminals who have become insane during their detention and are susceptible of recovery.

The treatment of the criminal and curable lunatics in a separate building of a prison seems to me to have great advantages. On their discharge these unhappy men should not have the stigma of having been in a lunatic asylum, and consequently it should be easier to them to reconquer an honourable place in society. The special lunatic asylums for the criminals ought only to be opened for those whose mental

condition should not allow of a rational treatment in the division of the prison called the lunatic ward; they should also receive the insane criminals whose incurability is more or less established.

2nd. That each prison, and a portion in each ward destined for criminals having become lunatic, ought to have a special staff of attendants with the necessary qualities, instruction, and education required to treat rationally the convicts who become insane.

3rd. That all convicts belonging to the class called imbeciles ought to receive special physical and mental care. They ought not to be discharged before the end of the duration of their imprisonment, because it is this class of degenerates that furnishes the great contingent of recidivists. One ought also to group in this class those criminals who, by their former way of living, have weakened their body and mind.

4th. That society does not take sufficient care to preserve malefactors from relapse. In the present state of things, and almost generally, the old criminals feel themselves abandoned by those who ought to protect them in a social point of view; very often they are obliged to ask for hospitality in lodgings, nearly always inhabited by the lowest class of society. It is not easy for them to find work again, and consequently they feel obliged to spend the best part of their time in these houses of ill fame. With the little money they have they begin to drink. They make the acquaintance of bad people, and by-and-bye they begin to provoke, or are provoked, to commit new crimes.

The medico-psychological examination has often proved that these individuals on leaving the prison cured, as much as possible, physically and morally, if they are obliged to follow the course we have described, soon decline again mentally, and, above all, lose their will and their self-respect.

Lombroso's school does not sufficiently understand the importance of the moralization of the criminals and of the protection of those to whom the doors of the prison are opened. We have the proof of it in what we daily see in lunatic asylums, which have in their population numerous individuals of whom criminals can be manufactured at leisure. I may mention the degenerated cases of moral insanity and those of mental weakness. Amongst them there are many that are able to receive a sufficient education and moraliza-

tion to give them, on parole, a very high degree of liberty. I dare to say so in a country where there are so many adherents of non-restraint.

If many convicts were submitted to treatment similar to that practised in our lunatic asylums, would relapses be so frequent? I have the firm conviction that the future will solve this question, and the more promptly because governments would understand the great necessity of introducing in a short time a medico-psychological service in all their prisons.

Neural Action Corresponding to the Mental Functions of the Brain. By FRANCIS WARNER, M.D., F.R.C.P., Physician and Lecturer on Therapeutics and Materia Medica at the London Hospital.*

While working purely on the lines of physical science it will be admitted that all observations recorded should be described in terms connoting physical phenomena, so given as to be capable of repetition, and, if possible, of measurement. No forces and no causes can be admitted as potent except those known to physiology and other branches of physical investigation. It follows that in dealing with the mental functions of the brain—here termed psychosis—we have nothing to do with “mind as an abstract entity” or with processes of feeling and consciousness, and must confine our attention to neural acts without either admitting or denying the existence of other potencies with which, while working on the lines of physical science, we are not concerned.

I will confine my remarks to action in the brain of man, as it may be inferred from facts observed. It is convenient to commence with observations in the infant when the neural arrangements are congenital, and trace by observation the development of indications of psychosis under impressions received from the environment.

In the healthy and well-developed new-born infant universal, slow, spontaneous movements, particularly in the digits and other small parts, are seen; this I have described as microkinesis.† It is not at first co-ordinated by impressions from the environment. In neural action it is inferred to correspond

* Paper read at the Psychology Section of the B. M. Association, held at Nottingham, July, 1892.

† See Tuke's “Dictionary of Psychological Medicine.”

with slow spontaneous action of many separate nerve-centres. At the age of three months some temporary co-ordination of the microkinesis is seen, the hands, head, and eyes moving towards an object, but this effect immediately follows the stimulus. There is some potentiality for psychosis.

At the age of four or five months the sight of an object may temporarily inhibit the microkinesis—attention is attracted. Head, eyes, and hands turn towards the object seen, then all movement is arrested for a moment; subsequently the child performs a new action, and seizes the object. Here, I think, we see the earliest indication of something that may be called “mental action.” It seems to me from observation of this “period of inhibition of microkinesis or latent period of the impression” that neural action of a new kind is observed, for this latent period is followed by a new action, and it must be inferred that during the latent period the neural arrangements were prepared for the new action. What can these neural arrangements be? Let us reconsider the facts, and see what they may teach us. Microkinesis indicates spontaneous action of many separate nerve-centres; the period of inhibition of movement indicates temporary arrest of their efferent function in producing movement, and this is an active result of a sight impression; it cannot be a period of negative-action, for it is followed by visible new action clearly sequential to the impression. I infer that an active neural arrangement (diatactic action) was formed among the centres by the impress of sight during the period of arrest of motor function. Let *a, b, c, d, e* represent separate, visible parts acting spontaneously; we infer separate spontaneous action (motor) in nerve-centres A, B, C, D, E. During the period of arrest of microkinesis A, B, C, D, E are not exercising motor function, but it is inferred that they are still active, for later we observe new movements, *ab, ad, ce* indicating the co-ordinated action of AB, AD, CE. It is this neural arrangement (diatactic action) for the action of nerve-centres in certain groups during the temporary arrest of their motor action that I infer to correspond to a simple mental act.

How is the intellectual power evolved? Following the hypothesis just given we must inquire how the neural arrangements for the action of cells in certain groups are established. There appears to be a law of widespread import concerning cellular growth and action. “Like cells co-nourished, and performing their function synchronously under control of some stimulus, tend afterwards to act together in similar groups, and

this tendency is strengthened by repetition." Thus co-ordination of nerve-centres is built up. In the case of the infant, suppose the sight of the red ball forms groups AB, AD, CE, indicated by movements *ab*, *ad*, *ce*, on repetition of the experiment the action becomes more exact and more similar on successive occasions. In adult life neural arrangements corresponding to ideas (percepts) are formed by sight of objects, and the printed page, repetition of the sight thereof, deepens the impression and fixes it, and the neural impress is retained; trains of thought may thus be established, leading in the end to expression or action. In the adult, as in the child, inhibition of movement is favourable to thought, the motor action is suspended and replaced by the formation of a series of neural groups, which finally produce an expression by movement. A train of thought must, according to the hypothesis, correspond to the preparation of groups of centres for action in a series under some stimulus whose repetition is followed by increasing rapidity and accuracy, *e.g.*, repetition of a poem frequently read or a series of motor exercises imitated by sight from the teacher. The laws of logic may be shown to be in harmony with the physiological law. Good intellectual action does not produce more physical wear than defective action, because there is no greater amount of nerve energy in one group of cells than in another corresponding; the value of the intellectual act depends upon its complete control by the stimulus. Sound intellectual function is in harmony with the environment, because it has been built up by it.

I have but briefly sketched my own ideas on a difficult subject, hoping to learn from others the results of their observations and study.

Sensations of Cephalic Pressure and Heaviness. Carebaria, Pesanteur de tête. Kopfdruck. By HARRY CAMPBELL, M.D.

Among the many abnormal cephalic sensations the following constitute an important group:—

- a. Sensations of pressure upon the head.
- b. Sensations in which the head seems heavy.
- c. Sensations of a vaguer character, though probably related to the other two, the patient often complaining of a heaviness in the head.

To this group the terms "carebaria," "pesanteur de tête,"

“Kopfdruck,” are applied indifferently. I shall for convenience use only the “Kopfdruck” of the Germans.

a. Cases of pressure upon the head. The most common site of this sensation is the crown. The following are from my note book :—*

Feels a pressure upon the crown (several cases).

Feels as if someone were pressing the brain down.

“Feels as if the ceiling were coming down, and were close to her, instead of being a long way off.”

Sometimes this sensation is so marked that the patient fancies some heavy substance is resting upon the head :—

Feels as if something were actually resting on the head—“keeps feeling for it.”

Feels as if a ton weight were on the crown.

Feels as if “somebody were sitting upon the top of the head.”

Feels as if a hot plate were resting on the crown.

Feels as if something heavy were pressing on the crown.

Next to the vertex, the most common seat of pressure-sensation is the forehead, and when this is the case the eyes are often involved in it. One patient felt a weight over the bridge of the nose; another complained of a sensation as of a band held tight across the brow; another felt as if the forehead were bandaged lightly up; while in one case there was a feeling of something pressing against the right temple. The sensation is less often experienced at the occiput; to one patient it seemed as if a ton weight were pressing upon the occiput and nucha.

The pressure may be felt on any two of the above regions at once, *e.g.*, the forehead and crown, the occiput and crown, the forehead and occiput. Sometimes it is felt on both sides of the head :—

Feels as if something were pressing on either side of the head.

Has feeling as of a weight on the crown, and sometimes the head appears to be pressed on both sides.

Or the sensation may extend round the entire head :—†

Feels as if a cord were tied tightly round the head, especially in the frontal region.

* Langius, referring to the vertex, observes :—“Ubi mulieres glaciei frigus et pondus se sentire fatentur.” Quoted by Stuckens, “De dol. cap.,” Brux., 1787. Bellini, “De Urinis et Pulsibus,” Leipsig, 1698, and many other of the older authors refer to the same passage.

† Wepfer writes of one of his cases—“There is, moreover, a constriction or tightening of the head as if it were bound round about by a cord or bandage.” “De Affect. Capitis.” Scaphusii, 1727.

Feels as if a string were tied round the head.

Feels as if something tight were tied round the head.

Feels as if a band of iron surrounded the head.

Feels as if an iron band encircled the head and were being tightened up.

In all the above instances the abnormal sensation was more or less limited to certain regions of the head. In the following it involved a much more extensive area, the whole, or a large part of the head seeming to be encased in a tight-fitting cap which exerted an equal pressure in its several parts:—

Feels as if the head and jaws were fixed in an iron vice.

Feels as if something were closely fitting the head, and were being screwed up tighter.

Feels as if the head were encased.

Feels as if the head were bandaged.

Feels as if the head were covered with a close-fitting skin, which was being tightened.

Perhaps some of the cases in which tightness is complained of are related to the last class, as, for example:—

Complains of tightness in the head.

Complains of a dreadful tightness.

Feels as if the skin of the head were too tight—as if the head were bursting. (This sensation is very common).

It must here be pointed out that the abnormal sensation is not always limited to the same position in the same individual. It may be felt sometimes in one part, sometimes in another, as in one patient who complained that the pressure sometimes involved the sides of the head and sometimes the crown.

It will be observed that the sensation of pressure was, in one of the above cases, felt at the back of the neck. I have met with instances in which it involved other regions—for example, the shoulders and upper part of the back. Dyspeptics, as is well known, often complain of “weight on the chest,” but how far the sensation is related to that under consideration I cannot say.

b. In the case of the second class of abnormal cephalic sensations, viz., heaviness of the head, the sense of pressure may or may not be present:—*

Head feels too heavy (several cases).

Head feels too heavy on shoulders—as “heavy as lead.”

* Willis describes the case of a woman suffering from headache who was also “vexed with a weight of her whole head, a numbness of her senses, and a dulness of mind.” (Eng. Trans. of his works.)

Head is so heavy, feels she must rest it.

Feels "top-heavy."

Has to hold head up—it is so heavy.

Whole head feels heavy; feels she cannot lift it from the pillow.

Sensation as of a heavy load at the back of the head.

A ton weight seems to be weighing the back part of the head downwards.*

c. In the third class the vaguely-defined sensation is not one of compression, nor of the head being unduly heavy; it is rather one of heaviness, or some allied sensation, usually described as felt *within* the head. It is, I need hardly say, by no means easy to identify the sensation patients thus try to describe. It is, perhaps, like that which many feel before a thunderstorm, or which occurs as a result of *suppressio mentium*, or when one is morbidly sleepy. I presume that it answers to the *χαρηβαρια* (*χαρη*=head; *βαρη*=weight) of Galen, alluded to several times in his works. Thus, according to him, one of the evils of the west wind was "carebaria"† which might also be induced by too much sleep, or sleep taken at unwonted times.‡ Another supposed cause is referred to in the following words:—"Alii, nisi assidue coeant, capitis gravitate molestantur."§ These and many other passages suggest that his "carebaria" describes rather a confused sensation of heaviness within the head than pressure upon it, or a feeling of unwonted weight. The following are illustrative cases from my notes:—

Has unpleasant feeling at back of head as if wanting to go to sleep.

Heavy feeling in the head (several cases).

Heaviness in the forehead during stooping.

The word "oppressive" was occasionally employed by patients.

Any of the three varieties of sensation just considered may occur with or without pain. Sometimes the pain is felt as distinct from the "Kopfdruck," when the patient will complain, *e.g.*, of headache and pressure on the crown. Often, however, the sensations cannot be mentally differentiated, the

* One of Wepfer's cases felt "as if a weight of lead were suspended from the back of the head" (*op. cit.*, p. 103).

† Kuhn's edition, Vol. xvi., p. 412.

‡ Vol. xv., p. 625.

§ Vol. viii., p. 417.

patient complaining of a *pressing* or *heavy pain*. The following are instances:—

Has “heavy” pains (several cases).

Has heavy agony.

Has pressing pain.

Has pressing pain, as if she would “go out of her mind.”

Compares the pain in the head to a pressure on it.

Complains of a heavy, stupid, “silly” headache.

The sensations of heaviness, pressure on the head, etc., may be unattended by any other abnormal sensation, or they may occur in combination with tenderness, pain, burning, irritation, a sense of coldness, and other sensations. The accompanying table exhibits combinations I have observed:—

Pressure, etc.	Tender- ness.	Pain.	Burning.	Irrita- tion.	Sensation of cold.
x	x				
x	x		x		
x	x				
x	x	x	x		
x	x	x		x	
x	x		x	x	
x	x				
x	x	x		x	
x		x	x		
x				x	
x		x			x
x		x			
x			x		
x					

Pain, tenderness, and pressure, involving generally the crown, perhaps constitute the most frequent combination. Tenderness and weight also frequently occur in the same region, and it is worthy of remark that when the sensation of pressure on the crown is combined with pain, the patient has more than once

complained of feeling as if he would go out of his mind. Pain and pressure are often felt in the forehead.

The various combinations exhibited in the table affected the same part of the head at the same time, but the areas involved by the component sensations were not in all cases exactly co-extensive. It may happen, however (though such cases are not taken account of in the table) that while the *pressure* is felt in one part of the head, the other sensations—pain, burning, or what not—involve some other part. Thus there may be frontal pain with tenderness and pressure on the crown; occipital pain with a sensation of pressure on the forehead.

These various facts tend to show that the sensation of pressure does not stand in any necessary relation to the other sensations enumerated—that, in fact, its nervous mechanism is separate from, or independent of, that belonging to any of the others.

The Eyes.—A word as to the sensations of weight and pressure in connection with the eyes and eyelids. Patients frequently complain of a weight in the eyes, and it is difficult to determine whether the sensation is in the eyeball itself or in the eyelid. The patient generally specifies the lids, often unconsciously quoting from Shakespeare :—*

Heavy frontal ache ; seems to weigh eyelids down.

Frontal pain ; eyelids pressed down.

Vertical pain ; weight over eyelids with it.

Sometimes, however, he complains—more vaguely—of the eyes being heavy and compelling him to close the lids :—

Heavy dreary feeling in the eyes ; can scarcely open them.

Frontal headache and weight in the eyes ; cannot keep them properly open.

The weight in the eyes causes them to shut.

It seems certain that the feeling of weight may be actually located in the eyeball :—

Frontal ache ; feels as if the eyes would drop out.

Heavy feeling, as if someone were dragging the eyes down the face.

When pain comes on, feels as if a weight were pressing the eyeballs down.

* The following passage from Stahl is interesting in this connection :—" Es drücke ihnen in den Stirn nicht anders, als ob ein Stein darinnen läge ; Können kaum die Augen dafür aufthun, und ins Licht sehen."—G. E. Stahl, *Med. Dog. Syst., etc.*, Sec. II., Halae, 1707, p. 683.

Feeling of weight in the eyes; feels as if they would drop out on looking down.

In one patient the weight seemed to be between the back of the eyes and the top of the head.

Causation.—1. Clinical Aspect.—Kopfdruck is essentially a manifestation of nervous debility (neurasthenia), and Runge's long article on the subject* is largely devoted to a description of what would now be called the neurasthenic state. Gowers, who regards it as a symptom of hypochondria, maintains—in accordance with this view—that it is more frequently met with in men than women, but my experience is the reverse of this: I find it exceedingly common among women, especially those who are debilitated from excessive nursing, or from poverty, those who are suffering from menstrual derangement, and, above all, those who are passing through the climacteric. It is, therefore, very common among the poor women met with in London out-patient rooms. I scarcely think I am exaggerating when I say that it and scalp-tenderness are more frequently present than not among them.

Regarding, then, general nervousness as the chief factor in its causation, two or three minor causes should be noticed.

(a.) Catarrh involving the frontal sinuses is very apt to be complicated by pain and a sensation of weight in the forehead—a fact noted by more than one writer (Labarraque, Runge).

(b.) Affections of the eye, *e.g.*, errors of refraction, may lead to a similar result (Runge).

(c.) Ear-disease is a frequent cause of Kopfdruck. Thus McBride writes: "A symptom very commonly met with in various forms of ear-disease is a sensation of pressure or weight in the head."† Runge also refers to this cause, and Morison points out that Kopfdruck thus arising is often limited to the side of the head on which the ear-disease is situated—a fact which I can confirm. He writes: "Among the minor and painless, but nevertheless very disagreeable symptoms of unilateral catarrh of the outer or middle ear, is that of a sense of weight and numbness over the affected half of the head;"‡ and he elsewhere points out that these sensations may be relieved by packing the opposite and unaffected ear.§

(d.) Finally, it may be mentioned that some have thought

* "Archiv f. Psych.," Band vi., p. 627.

† "Diseases of the Throat, etc.," 1892, p. 395.

‡ "Practitioner," Vol. xxxvii., p. 173.

§ "Lancet," Vol. i., p. 519, 1883.

Kopfdruck a characteristic of syphilitic headache. J. Rumpf,* *e.g.*, states that a "nightly increasing sense of pressure on the crown, though not always, is sometimes referable to syphilis," and he cites a case of syphilis in which such a sensation became intensified towards evening, reaching its height at 2 a.m., and then diminishing, but never actually disappearing. He adds: "This symptom (wie ich schon früher gegenüber Seeligmüller ausgeführt habe) is certainly not absolutely characteristic"—thereby implying that it had been so considered. Ross also † speaks of syphilitic headache as being attended by Kopfdruck.

2. Anatomical Aspect.—Concerning the anatomical changes which lead to the phenomena of Kopfdruck, nothing can be said with certainty. Ziem explains vertical headache with a sensation of pressure by supposing congestion of the superior longitudinal sinus and its emissary veins; ‡ while Runge § attributes the sensation to pressure on the sensory nerves of the cranium and scalp, owing to disturbance in the circulation wrought through the vaso-motor nerves. He manifestly regards it as set up essentially in the periphery.

The feeling of tightness in the head, as if a tight skin were enveloping the cranium, or a tight cap compressing it closely, may possibly be sometimes associated with local vascular distension,|| indeed, in some of these cases the patient feels "as if his head were going to burst." Gowers obviously attaches little importance to anatomical changes in the envelopes of the brain as a cause of the phenomena, regarding the mental state of the patient as the chief agent in the production of Kopfdruck and other cephalic sensations. "There is probably at the outset some actual sensory impression, often some headache, and the attention is constantly directed to the part, with the result that the patient perceives sensations which, under normal circumstances, would be unperceived. Nerve-impulses, in health unnoticed, must be continually passing from all parts to the centres, and they may be readily perceived if attention is directed to them. . . . If the reader will direct his attention to the vertex, he will probably soon be able to detect a distinct

* "Die Syph. Erkrankungen des Nervensystems," Wiesbaden, 1887, p. 252; also p. 273 and p. 275.

† "Diseases of the Nerv. System," Vol. i., p. 692.

‡ "Monatsch. f. Ohrenheilkun.," Nos. 8 and 9, 1886.

§ *Op. cit.*, p. 641.

|| The following passage from Galen—Kuhn's edit., Latin translation—is worthy of quotation in this connexion: "Alii caput contundi distendique sentiunt."—Vol. viii., p. 204.

sense of pressure there, especially if he is fatigued or has been engaged in mental work." *

That a concentration of attention on the affected part may be partly responsible for the abnormal sensations thus felt, especially in men, I fully admit, but I do not think it is an essential element in causation. In the vast majority of the cases I have met with, the sensation has arisen spontaneously.

Psychic Nature of the Abnormal Sensations.—Concerning the psychic nature of the vague sensations of heaviness felt within the head, I shall say nothing further than that they are essentially morbid, like giddiness—not related, that is to say, to any normal sensations, to any sensations met with in perfect health. Those cases, on the other hand, in which the head feels abnormally heavy, might possibly be explained by assuming some modification in the muscular sense belonging to the muscles which support the head—indeed, one does not quite see how it could actually feel heavy except through this sense. Similarly, a feeling of weight in the upper lids is probably a modification of the muscular sensibility of the levatores palpebrarum. I may here remark that I have found posture exercise a variable influence on the sensation of heaviness of head, a change of position, as from sitting or standing to lying down, sometimes diminishing it, at others having no effect; and in the latter case the origin of the sensation must, one would think, be essentially central.

As regards the pressure-sensations: when a weight is placed on the top of the head, not only is the scalp pressed, but the action of the muscles supporting the head is modified; therefore, in this case the feeling of weight is a complex of cutaneous sensation and muscle-sensation (= "muscular sense"), and the like is true when pressure is applied to one side of the head (if the pressure is equal on both sides or all round, no muscles are called into action). The question we have to decide, therefore, is whether the abnormal sensation of pressure involves a muscular element. The fact that it generally continues when the head is entirely supported, as in lying down, suggests a negative answer, since the supporting muscles of the head are not then called into action. I say *suggests*, for the muscle sense might be involved independently of muscular action.

* "A Manual of Diseases of the Nervous System," 1888, Vol. ii., p. 802.

Historical.—I have already referred to some passages from Galen, in which he alludes to carebaria, and may now add the following:—

In Vol. xvii. (Part 1, p. 33), the influence of Auster is again alluded to. In Vol. xvi. (p. 115) he mentions a redundancy of humours, and in Vol. xv. (p. 781) stagnation of blood as causes of carebaria; while in Vol. xvi. (p. 798) he speaks of this sensation as a sign of hæmorrhage. According to him, the bath removes it (Vol. xv., p. 719), and sneezing appears to alleviate it (Vol. xviii., Part 1, p. 159).

Areteaus, writing on chronic headache, observes that it may be accompanied by great dulness and weight in the head.*

Stahl† has an interesting passage referring to “pressing” pains.

Jott,‡ writing on nervous headache in women, says the pain in his cases was severe, and often combined with a sensation of weight.

Carebaria is frequently mentioned by authors from the time of Galen down to the present. See, for instance, Colin§ and Labarraque.|| Runge, in a paper already referred to, devotes 54 pages to the subject, under the title of “Kopfdruck,” but he occupies himself chiefly with a description of nervousness in general, citing a number of cases, and dealing in detail with treatment. He remarks upon the tendency displayed by patients afflicted with Kopfdruck to rub the head, and states that pain is present in one-fifth of the cases only. Among the causes he gives are affections of the eyes, ears, frontal sinuses, throat, gastric and uterine troubles, and many of the recognized causes of nervousness.

* “On the Causes and Signs of Acute and Chronic Diseases,” translated by T. F. Reynolds, Lond., 1837, p. 59.

† *Op. cit.*, p. 680.

‡ “Neue Zeitsch. f. Geburtskunde,” 1842, Band ii., p. 70.

§ “Dict. Ency. des Scien. Méd. Art. Céphalalgie.”

|| “Essai sur la Céphalalgie.”

On so-called Paranoia. By E. L. DUNN, B.A., M.B., etc.,
Wakefield Asylum.*

The class of cases described under the term Paranoia have long been recognized in England, though, perhaps, they have not been studied to such an extent as on the Continent, and have, no doubt, been looked at from a different point of view. The word in Greek literally means "madness;" we find it employed by authors synonymously with the terms Wahnsinn and Verrücktheit, and on account of the confusion existing between these, Mendel, in 1881, and Werner, in 1889, proposed to substitute "paranoia" for them. In this sense it may be taken to mean "systematized insanity," a definition which covers all classes of paranoia.

The first difficulty which one encounters in studying the literature of paranoia is the question of the acute and chronic forms of the disorder. The acute form, first described by Westphal in 1878, has been admitted by Meynert, Amadei, and Tonnini, and others. Under this heading we find included cases ranging in variety from acute hallucinatory insanity with delusions, to cases of melancholia with stupor and the katatonia of Kahlbaum. Truly this is a protean disorder. On the other hand the existence of an acute form of paranoia is denied by Krafft-Ebing, Mosselli, Tanzi and Riva, and other alienists. With the latter we are disposed to agree; we are unable to find any sufficient connection between the forms described and chronic paranoia to warrant their being classed under that heading. Many of the forms described as acute paranoia have few or no common pathognomic symptoms, and in addition show few points of differential diagnosis from the received acute psycho-neuroses. The introduction of the term is to be deprecated as rendering more complex an already involved subject.

Chronic paranoia is, by those who admit it, divided into two forms—Primary or originating *de novo*, the most important and typical form, and secondary, the termination of a previous psycho-neurotic state.

Of the forms of paranoia generally recognized, that of paranoia persecutoria is the most important. This corres-

* Paper read at the Psychology Section of the B. M. Association, held at Nottingham, July, 1892.

ponds roughly to the *délire chronique* of Magnan and other French authors. It is described by MM. Magnan and Sérieux* as a primary disorder always identical with itself, which runs through four definite stages, always succeeding one another in a fixed order. First, the incubation period, characterized by restlessness and suspicion. In the second stage the delusion of persecution appears and the delusional conceptions become systematized under the influence of aural and other hallucinations. The third stage is characterized by the appearance of ideas of grandeur, and the fourth by dissolution of the delusional states and weak-mindedness. Magnan states that the disorder often attacks those free from hereditary taint, and who previous to the attack have been of fully developed intelligence and have shown no sign of moral or intellectual anomaly. Before proceeding to discuss this form of paranoia further it will be well to give a short resumé of the history and principal views held on the subject.

Lasègue, in 1852,† described systematized ideas of persecution, the first clear description of the subject. He included in his *délire de persecution* cases without prodromal period, cases without hallucinations and some subacute alcoholics.

Morel, in 1860,‡ in his two classes of hereditary insanity described almost all classes of primary systematized delusions. He describes the peculiarities of these subjects, and insists on the great frequency of systematization in these forms, and the rapidity of appearance of the delusional ideas in some cases and their slow evolution in others. In his chapter of hypochondriacal neuroses he describes persecuted patients who became exalted, but insists on their having been hypochondriacal at first.

Griesinger, in 1861, described systematized insanity, considering it always secondary to mania and melancholia. In 1867 § he retracted this opinion and admitted with Snell || the primary origin of mixed states of persecution and grandeur (*Primäre Verrücktheit*). He described also the hypochondriacal and erotic forms.

Sander, ¶ in 1868, described a form of *Primäre Verrückt-*

* "Délire Chronique," Magnan et Sérieux, Paris, 1892.

† "Archiv. Gen de Méd.," Fév., 1852.

‡ "Traité des maladies mentales," 1860.

§ Griesinger, "Archiv f. Psych.," B. 1, S. 148, 1867.

|| Snell, "Allgem. Zeitschr. f. Psych.," B. xxii., p. 368, 1865.

¶ Sander, "Archiv f. Psych.," B. 1, S. 387, 1868-69.

heit, which he calls "originäre." These patients manifest intellectual anomalies due to heredity from infancy. They form into two classes. Some arrived at the period of puberty are seized with hallucinations and delusions and fall rapidly into dementia. Others live for some time in society conspicuous for their eccentricities; the morbid subjectivity of which they are the prey increases, and from this they ultimately develop ideas of persecution and poisoning.

Foville,* in 1871, described the delusion of grandeur, megalomanie. In this he includes both persecuted patients with long incubation periods who have become exalted and also cases with primary exaltation, and others without hallucinations.

Westphal,† in 1878, divided systematized insanity into four classes—the hypochondriacal form of Morel, the chronic, acute, and originäre forms, the latter being the only one in which he admits a degenerative basis.

Mendel,‡ in 1883, insists on primary paranoia. He divides it into simple and hallucinatory, acute and chronic. He also describes originäre paranoia (always hereditary and degenerative) and the quarrelling insanity. He further admits secondary paranoia, but insists on its rarity.

Among more recent writers on the subject, the following views have been published:—

Krafft-Ebing§ considers paranoia solely a chronic disorder and never developing except in those with hereditary taint; in fact, the paranoia is often merely a hypertrophy of an originally abnormal character. He describes the incubation period as lasting months to years and characterized by suspicion; the actual disorder is marked by sense perversions and hallucinations.

The main symptom of the disorder is delusion devoid of affective basis, from the outset systematic and methodical, and the primary creations of a disordered brain. Other psychoses may occur in its course, and the disease terminates in a condition of psychical weakness, which is not true dementia. He divides the disorder into paranoia "originäre" and "tardive." The originäre commences in childhood as described above. The tardy form is divided clinically,

* Foville, "Étude clinique de la folie avec predominance de délire des grandeurs," 1871.

† Westphal, "Allgem. Zeitschr. f. Psych.," B. xxxiv., S. 252, 1878.

‡ Mendel, "Eulenberg's Encyclopædia," Nov., 1883.

§ "Lehrbuch der Psychiatrie," 1890.

according to the contents of the predominating delusion, into paranoia persecutoria and expansiva, the former being more frequent. But these can occur after, in conjunction with or isolated from one another. He makes a further sub-division of these forms etiologically. He describes the typical persecution form at length, and the transformation into exaltation, which he says occurs in one-third of the cases.

Kraepelin* considers that Verrücktheit develops in a soil of psychical invalidity with insufficient critical power. This may be congenital or have supervened in the existence of the subject. He finally divides systematized insanity into the expansive and depressive form.

Domenica Janni† expresses similar views as to the etiology and classification of paranoia, but distinguishes a secondary form.

Amadei and Tonnini‡ describe a primary degenerative form of paranoia and a secondary. They sub-divide these into simple and hallucinatory forms.

Tanzi and Riva§ insist on the degenerative basis of paranoia. They consider it always to be accompanied by hallucinations and delusions more or less systematized, but independent of the emotional condition. In only 14 cases out of 100 heredity was unknown, but not excluded. They consider paranoia a constitutional form, the delusion only a symptom; the anomalies of the degenerative constitution develop until they reach maturity at about 32 years, the period when the sound man is at his intellectual height. They divide paranoia into seven classes according to the contents of the delusion.

Snell|| considers the essential character of paranoia is delusion based upon hallucinations and having the character of suspicion and persecution. The pure delusion of exaltation never occurs in paranoia. The ideas of exaltation may appear simultaneously with the ideas of persecution, may appear at the onset, disappear for a time to return later more marked, or may follow ideas of persecution after a variable time; the two then persist together. This is the usual relation.

* "Psychiatrie, dritte Auflage," Leipzig, 1889.

† "Manuale delle malattie mentali," Napoli, 1891.

‡ La paranoia e le sue forme, "Archiv Ital. per le malattie nervose," 1883-84.

§ "La paranoia contributo alla storia della degenerazione psichiche."

|| L. Snell, "Zeitschr. f. Psych.," B. xlv., Heft. iv., 1889.

We may now turn to the fuller study of paranoia persecutoria, the most important and circumscribed type.

This disorder appears at from 35 to 45 years of age. It is more frequent in the female sex. Of the various somatic and other conditions somewhat empirically given as causes, the climacteric is most important.

The incubation period is long and often passes unnoticed, the patients at this stage rarely finding their way into asylums. Its symptoms are indefinite. The patient experiences a general feeling of *malaise* and discontent which he cannot explain. He sleeps badly and loses his appetite. He becomes nervous and excitable, and shows but little aptitude for his accustomed work. Gradually he becomes suspicious, and imagining that people look askance at him and despise him, remains for some time in the midst of various doubts which ultimately give way to delusional interpretations. It is remarkable, according to Lasègue, that the circumstances which cause the *point de départ* of his delirium are trifles such as would not annoy him in health, while great misfortunes may happen to the patient without causing him corresponding mental distress. He remains for a varying period ill at ease, suspicious of others and constantly seeking a cause for his abnormal feelings and finding it in the most insignificant details of life. Constantly on the watch, any scrap of conversation he may overhear he attributes to himself as abusive, and suffers from an illusion of persecution. The idea of persecution constantly before the patient's mind at length reacts on the cortical auditory centre; already prone to illusion, the mere ideation henceforth suffices to awaken its corresponding auditory sensation, and the aural hallucination is the consequence. The patient then enters on the second period of the disorder. This is characterized by the full development and complete systematization of the ideas of persecution, and by hallucinations of all the special senses of a distressing character, in the following order of association and frequency:—Hearing; hearing and general sensibility; hearing, general sensibility, taste and smell; and lastly hearing with taste and smell only. Visual hallucinations are extremely rare, and if present are usually not related to the systematized disorder.

The hallucinations of hearing are at first simple, clocks ticking, buzzing sounds, etc., then come low voices and whisperings which the patient cannot understand. Soon

these develop into isolated words and whole sentences. The disorder of the cortical centre increases, voices now accompany the patient everywhere, and he holds imaginary conversations with his enemies. The function of ideation finally becomes automatic, and reacting on each occasion on the disordered auditory centre, calls forth the corresponding tonal image, and the patients complain that their thoughts are repeated before they speak them. Hallucinations of general sensibility may appear at this period or sooner, and tend to further systematize the ideas of persecution. The delusional ideas follow a regular course, at first vague, then soon become more definite. The patient explains his abnormal sensations according to his education and social status. He accuses in turn electricity or hypnotism as the cause of his distress, and various secret societies as the agents therein. Soon he becomes more exact and fixes upon some definite person. His reaction in presence of the delusional idea is at first passive, he merely takes precautions to avoid his enemies; soon, however, he takes on an active stage, and resolving to avenge himself becomes most dangerous. He may remain in this condition for many years, the delusion stereotyping and co-ordinating itself and developing a change of personality. In effecting this the hallucinations of general sense are most important. The patient, unable to account for the bundle of new sensations which he experiences, tends to realize a new personality which may co-exist with the old. Occasionally the phenomenon of loud thoughts assists in this change, the patients imagining that someone speaks in their head or stomach and lays hold of their thoughts. At this stage he often takes to the creation of neologisms, ordinary language being insufficient to express his unaccustomed sensations. The delusion of exaltation has now usually been for some time established; this may be merely a superadded symptom or occasionally monopolizes the whole disorder.

The transformation to exaltation, for which the patient is already prepared by his tendency to a change of personality, and for which the characteristic egoism of the disorder has rendered the soil ripe, may take place in one of three ways. (1.) By logical deduction. The patient, at a loss to account for his constant persecution, imagines that he must have annoyed some great or powerful person, or that people are envious of him. From this the transformation to the idea that he is a great personage himself is easy, and the mental

ease consequent on finding the explanation of his woes tends to further it.

(2.) In some cases the transformation may take place suddenly under the influence of a hallucination or illusion.

(3.) Others consider that the exalted idea is merely a morbid exaggeration of the patient's original traits. According to Mairêt, these patients have always had a tendency to megalomania.

In any case the exalted ideas usually supervene, but it must be remembered that it is occasionally difficult to elicit, as these patients are often chary of discussing their ambitious ideas, though such may actually be present in full force.

The ideas of exaltation usually group themselves into three classes. (1.) Ideas of transformation of personality; they imagine themselves to be kings, emperors, or gods. (2.) Ideas of power; they have superhuman or mysterious powers, they direct the stars and control the elements. (3.) Ideas of wealth; they have enormous riches and immense possessions. Any two or more of these ideas may be present concurrently. In certain cases, however, these may not be of so marked a character. Occasionally death may cut off the patient before the stage of transformation of the delusion. In any case, however, it is rare for the persecutory ideas to disappear completely; they usually persist in some degree in connection with the exaltation.* This stage of exaltation may last a variable time, but ultimately the patient arrives at the terminal period of weak-mindedness.

On the occurrence of complete dementia as a consequence of paranoia, authors are divided in opinion. According to some the termination of paranoia is a condition of psychical weakness, in which the delusions and hallucinations lose their power to excite, the patient becomes apathetic and settles down to some form of employment, while retaining the power of conversing and reasoning rationally outside the sphere of his delusion. As, however, paranoia begins in middle life and requires from twenty to thirty years to run its full course, in the final stage one must consider the ordinary mental enfeeblement of old age when estimating the destruction of mental power due to the psychosis.

Prognosis.—Paranoia is generally admitted to be incurable. Krafft-Ebing has seen no cure in 700 cases. Metz and Roller have, however, in a recent number of the "*Zeits. f.*

* Cf. Snell, *loc. cit.*

Psychiatrie," published two cases of cure after influenza. Remissions may, however, occur with complete latency of symptoms. One must guard against confusing dissimulation on the part of the patient with these remissions. Exacerbations or acute psycho-neuroses may occur in the course of the chronic malady.

Pathological.—With a view to establishing the position of paranoia as a morbid entity, various hypotheses as to the seat of lesion in the brain have been suggested. The primary feature of the disorder consists in the morbid condition of self-reference without increased emotionalism. To account for this, Meynert supposes conditions of irritability in the bulb; these are supposed to cause anomalous hypochondriacal sensations, which, by keeping alive the egoism in morbid intensity, produce the characteristic symptom referred to. Wernicke suggests a focal lesion in those cell elements which have been regarded as the basis of reproductive imagination, causing incongruity of reproduced images with the normal impressions of the outer world. The conception of a psychical focal lesion was first introduced by Wernicke in 1874. Sensory aphasia afforded him a precedent. Neisser refers the hallucinations and the phenomena of loud thoughts to a central focal disturbance. Meynert explains the latter phenomena by supposing an irritation of the centres of the nervus acusticus; Cramer considers this symptom as hallucination of the muscular sense in speech apparatus.* These suggestions are purely theoretical, and are merely brought forward to show the possibility of referring the entire symptoms of the disorder to a definite localizable disturbance.

Secondary Paranoia.—In this condition a small group of delusions may remain and become systematized, as the outcome of a previous acute psycho-neurosis, almost always melancholia. In these patients there is profound weakening of all intellectual processes, judgment and memory. They are apathetic as to their past and to all that was previously interesting to them. The delusions are more monotonous in character and their affective effect is not so marked. These patients generally terminate in profound dementia, with loss of social and æsthetic traits.

One other special form of paranoia deserves mention; paranoia alcoholica—Krafft-Ebing calls this a rare condi-

* C. Neisser, "Centralblatt f. Nervenheilkunde und Psych.," Jan., 1892.

tion. According to him, the delusions have often a sexual basis. It is marked by the frequency of visual hallucinations, the early onset of mental weakness, and the irritability and brutal behaviour of these patients.

As regards the differential diagnosis of paranoia, we may just contrast the idea of persecution as appearing in the melancholic and paranoiac state. Briefly, the *melancholiac* has ideas of sin and guilt, he bears his chastisement humbly, considering it deserved, and if he feels his altruistic feelings growing cold he regrets it. His delusions are secondary to the affective state; they revolve around a feeling of depression and are rooted in this. The *paranoiac*, on the other hand, is chastised for no fault of his own; he revolts against his persecutors, his altruistic feelings diminish, but his intense egoism prevents his regretting them. The affective state in paranoia is always secondary to the delusive, and is the logical reaction to it.

The hypochondriac may be confounded with the paranoiac in the first stage. The former, however, is wrapped up in his sufferings; he suspects no one and does not look outside himself for their cause.

In the second stage all delusions of persecution without hallucinations must be distinguished from paranoia; all cases in which the delusion constantly varies, and also cases of delusion arising suddenly without stage of evolution. According to Magnan, these cases bear the physical or moral stigmata of degenerescence.

From the third stage, we must especially differentiate primary delusions of grandeur, in which the prognosis is often good. The age at which paranoia appears, usually in middle-life, must be taken into account, but more especially the evolution of the delusions, their logical connection with one another, and their dependence on hallucinations.

If we turn again to the classification of continental authors above quoted, we find grouped together, by various authorities, cases acute and chronic, hallucinatory and non-hallucinatory, those with primary exaltation, and those where the exalted ideas are the result of lengthy evolution. We find described as different clinical types, under the head of monomania of exaltation and monomania of persecution, different stages in the same disorder—a state of affairs described by Magnan as a “clinical mosaic,” where one seeks in vain for a constant cause or fixed prognosis. The same condition exists in the English Clinical Text-books.

It cannot be denied, in the face of so many eminent authorities, that there exists a large group of cases, originating primarily from a long period of incubation, following a constant course evolving through fixed stages, and the separation of which from others now ranked in the same class is not difficult. If we are to reclassify the old monomanias and take up a new terminology the classes renamed should be as distinct as possible. That class termed *paranoia persecutoria* by the Germans, *délire chronique* by the French, is admittedly the most typical of *paranoias*, and it would save much clinical confusion if the term were confined to that class only, admitting therein all cases whose slow evolution of delusion and logical systematization in connection with hallucinations of a painful and distressing kind, points from the first to a chronic disorder, whether the subject thereof may happen to bear the marks of a faulty heredity or the reverse.

Remarks upon the Influence of Intestinal Disinfection in some Forms of Acute Insanity. By JOHN MACPHERSON, M.B., F.R.C.P.E., Stirling District Asylum, Larbert.*

Every asylum physician must regret the necessity that exists for the employment of narcotic hypnotics in medical practise among the insane, and there are probably few who have observed it who do not deplore the far too extensive use of sedative and depressing drugs, which is unfortunately the common custom in some asylums.

One is therefore readily led to consider whether some other means less injurious, more physiological, more permanent in action might not be substituted for narcotic remedies. Recently a form of therapeutic fashion has arisen in our specialty, which in its advocacy of certain new drugs, such as paraldehyde, urethane, sulphonal, etc., has sought to classify them as sedatives or hypnotics in contradistinction to narcotics. Anyone, not a partisan of the use of the drug, who has observed a patient under the full influence of such a drug as sulphonal cannot fail to be painfully impressed by the spectacle, and every doubt as to the alarming narcotic power of the drug must be dispelled. It is not, however,

* Paper read at the Psychology Section of the B. M. Association, held at Nottingham, July, 1892.

against the valuable action of sulphonal in certain cases that these remarks are indited, but against its misuse and against the fallacy by which it is sometimes made to appear that the drug in large doses is not a narcotic poison.

Many physicians, including myself, have been trained to regard narcotics as injurious (in acute cases), and as tending to retard the course of recovery. I have invariably found that after a good night's sleep, the result of a sedative narcotic, the excited patient was next day noisier and more troublesome and the melancholic more distressed in mind.

We have, therefore, to deal with a reaction which can only be overcome by the continuous administration of the drug, which in many cases means the emaciation of the patient and the depression of his physical vitality.

It is claimed for sulphonal that it has the power of warding off the periodic attacks of some forms of recurrent insanity.

It ought to be within the knowledge of asylum doctors, for it is a well-known fact in the experience of many old asylum attendants and patients, that there is another and simpler way by which these attacks are often abortively checked, namely, by the administration of a smart hydragogue cathartic purge.

Over and over again have I heard of patients, knowing that a periodic attack was imminent, asking their attendant for a dose of salts or a dose of castor oil, a request which was generally gladly complied with, for both the patient and the attendant foresaw an anxious time of longer or shorter trouble before them, which, if once established, no drug had power to remove.

This fact impressed itself upon my mind, and led me, in conjunction with the other two or three reasons that follow, to take up this subject.

Constipation of the bowels undoubtedly tends towards the exacerbation of the symptoms of acute mental disease, and an instantaneous though temporary improvement follows the relief of a loaded intestine.

Again, there is in every acute case of insanity a marked and apparent disorder of the gastro-intestinal tract.

This affection is probably secondary and sympathetic, but even then it must exercise through the sympathetic system of nerves an irritating and disturbing influence upon the general bodily functions, besides being the source of continual contamination of the whole system by the formation

within it and the absorption from it of the products of putrefactive change.

It is possible that the naso-pharyngeal and gastro-intestinal affections, which are the concomitants of certain forms of stupor, are something more than sympathetic, and if not coincident with the nervous affection are at least symptomatic of it.

It is a fact that is widely known that the administration of calomel or other forms of mercury in purgative or laxative doses is sufficient to induce sleep, and the fact has been pointed out by Dr. Lauder Brunton that *nux vomica* in small doses acts in some cases as a mild hypnotic. Some purgative medicines, besides calomel, have a soporific influence. But I was chiefly led to the consideration of this subject by a passage in the work of Sir Charles Bell upon the nervous system. At page 355 he is describing the treatment of *tic douloureux*, illustrated by several cases.

After some weeks of attendance, one morning (whilst I was surrounded by the out-patients) this man, not waiting his turn, burst through the crowd calling out he was cured! This, no doubt, he did from his confidence in the interest young and old had taken in his sufferings. I knew not what I had given him, but looking at his card I found the following:—*Ol. Tiglii* (Croton) *gtt. i.*; *Mas. Pil. Colocynth Co.* 5 *i.*; *misce et ft. pil. xii.*—one of the pills to be taken on going to bed. . . . Impressed with these facts, the moment that we see the map of the relations of the sympathetic nerve with the second division of the fifth by a large and direct branch, and lesser connexions of the same nerve with all the branches of the fifth, we surely need look no further in explanation of the frequent and intimate dependence of a painful affection of the face upon the state of the digestive organs.

This illustrative case is followed by a string of others hardly less instructive, in which the wonderful effect of this purgative combination in the relief of trigeminal neuralgia is set forth. While we are not bound to accept Bell's explanation we are still met by the fact that certain drugs in certain combinations have an action through the intestinal tract upon the central nervous system. We also know the effect of disorder of the gastro-intestinal tract upon the nervous system, and chiefly upon the mental manifestation.

We know that certain forms of gastric and hepatic derangement are accompanied by mental depression. There is a form of melancholia which might be described as visceral. There is great uneasiness over the region of the stomach and

bowels, with rapid formation of gases and acid eructations and physical and mental distress after food. Once it is established it is relieved, though not cured, by the administration of mercurials and gastric tonics. In a certain degree, however, it may be said that every melancholia is visceral, or at any rate manifests the constant concomitant of gastro-intestinal affection. The mouth is dry, the tongue is furred, the digestive functions of the stomach impaired, and the bowels constipated. It is therefore quite conceivable that the relief of this condition should be followed by the temporary or permanent relief of the nervous affection, of which it is a concomitant or secondary effect. But the state of the gastro-intestinal tract is, I believe (and upon this fact I found my theory of the treatment that follows), in its disordered state the source of a further element of complication and aggravation of acute mental diseases. For it more readily permits of the formation of poisonous ptomaines, gases, and other products of putrefactive change which enter the circulation and deleteriously affect the nervous system. Recent researches seem to prove that the acid of the gastric juice is primarily and chiefly an antiseptic agent, and that its function of aiding peptic digestion is a subsidiary and secondary one. It is the only example in nature of a mineral acid being secreted by a living membrane, and the teleological view of its origin is strengthened by the fact that in the mollusca the acid is not hydrochloric, but sulphuric, and that it contains no digestive ferment.

The total destruction by a healthy stomach of foreign or pathological germs which might enter with the food and cause further mischief in the intestines is thus secured.

Where the gastric secretion is perverted, as in acute mental disease, this antiseptic power is in abeyance. It is proved that the pancreatic juice, which is alkaline, is very slightly antiseptic, and according to Bunge so slight is the antiseptic power of the bile that it will not keep itself fresh for forty-eight hours.

With the view of attempting to supplement the weakened activity of the alimentary tract, and with the object of checking the formation of ptomaines, due to putrefaction and imperfect proteid digestion, I resolved to attempt by the following methods, which though they have only been followed by partial success, yet appear to suggest a probable opening up of a new way for the relief and amelioration of many forms of mental affection.

When a case is admitted that seems a suitable one for this form of treatment the stomach is carefully washed out, and the character of the contents is usually such as to justify this simple procedure "*per se*." A dose of calomel varying from two-and-a-half to four grains, according to the patient, is administered in the evening, and is followed, if necessary, by some mild cathartic in the morning.

It is better to continue to wash out the stomach every day or every second day during the course of the first week, and to pay special attention to the bowels, which must not be allowed to become constipated. In order to secure their action, some form of laxative such as Pulv Rhei. Co. or cascara and liquorice should be regularly administered.

On the morning of the second day of the patient's residence the special treatment is begun, which consists in the administration of naphthalin in 10 grain doses three times daily in the interval between meals, which may be gradually increased until as much as 60 or 80 grains are given in the course of 24 hours.

After reading the experiments of M. Fere and a paper in the British Medical Journal by Dr. William Hunter, on "The Treatment of Pernicious Anæmia," I was led to use beta or iso naphthol, but I afterwards abandoned it entirely in favour of naphthalin, having had a much more satisfactory experience in the use of the latter drug.

Naphthalin has the chemical formula $C_{10}H_8$. It is excreted in the urine partially unchanged and partially as beta naphthol $C_{10}H_7OH$, and partly as phenol C_6H_5OH , so that its power of disinfection seems vastly superior to that of naphthol.

In my hands, and for the purpose I had in view, naphthalin exercised an incomparably stronger influence than naphthol.

It is said to be poisonous when absorbed into the system, and its great insolubility is said to be the safeguard against its toxic effects. After using it in large doses several hundred times, I can state that in no instance or at any time was there the remotest symptom of poisoning apparent.

Further, there was no interference whatever with any of the functions of the body.

The test of the utility of such a drug as naphthalin in inhibiting putrefactive change within the body is the diminution of the aromatic sulphates in the urine.

In order further to prevent the formation of putrefactive

products in the intestine, nitrogenous food was, as far as possible, eliminated from the dietary of the patients undergoing treatment, and peptonized gruels were, therefore, administered to those cases requiring food in addition to the ordinary meals instead of custards.

Nothing in this form of treatment contra-indicates, so far as I know, the employment of any other drug at the same time.

In none of the cases were single doses of naphthalin followed by any marked results. In the great majority of cases it required continuous administration for several days to produce the desired effect.

The following cases are given as illustrating the action of naphthalin, and as typical of the results obtained:—

CASE I.—Female, aged 65, suffering from delusional melancholia, with great excitement, noise, sleeplessness, refusal of food, and bodily emaciation. She imagined that she was to be burned alive or scalded to death in a hot bath, and did not cease to scream and shout with terror and struggle with the attendants. About one month after admission the usual preliminary treatment was adopted, and naphthalin in 10 grain doses was administered with the feeding tube three times a day. Within three days after the commencement of the exhibition of naphthalin, the patient became quiet and began to sleep better at night, and by the end of the first week of treatment she had ceased to manifest any symptoms except the delusional expressions.

These disappeared gradually, and she finally recovered two months after the commencement of the special treatment. Weight during treatment increased from 112lbs. to 124lbs.

CASE II.—Female, aged 23, labouring under melancholia, with impulse, a tendency to stupor and suicide, refusal of food, and sleeplessness. She was resistive, and refused to answer questions or to respond in any way when addressed. She was at once put under treatment, and began to improve forthwith. At the end of three weeks she was working industriously in the ward and taking her food well. She replied to questions in monosyllables or by signing with her head. She continued in this condition until her removal from the asylum, ten weeks after the commencement of treatment. Weight at commencement of treatment, 112lbs.; ten weeks later, 116lbs.

CASE III.—Male, 47, melancholia; had attempted suicide prior to admission, very depressed and suicidal, refused food, and was sleepless. No change in his condition having taken place, the special form of treatment was begun five weeks after admission. He steadily improved, and was discharged recovered exactly one month from the date of the commencement of treatment. Weight before treatment, 140lbs.; weight at time of discharge, 147lbs.

CASE 4.—Male, 58, presented alternately symptoms of mania and melancholia, was at times very excited and noisy. He slept badly and was very troublesome. He was put upon treatment about a week after admission, and immediately thereafter calmed down and became less troublesome. In about three weeks he became, to outward appearance, quite sanè, but retained delusions regarding his family. Weight before treatment, 135lbs.; after quiescence, 141lbs.

The following is a brief description of the results of the treatment of thirty acute cases, chiefly cases of melancholia :—

Bodily Health.—In no case was there any apparent interference with appetite, digestion, assimilation, or with the regular action of the bowels or the excretory function of the body.

The action of the drug in the prevention and removal of anæmia was so marked in the cases treated that I desire to draw special attention to it.

The bodily weight increased steadily in most of the cases during the administration of the drug, and it is significant that in no case was there any loss of weight. When it is remembered that the dietary was as non-nitrogenous as it could, physiologically, be made, even to the exclusion of eggs, it is all the more important to record this fact as indicating a tendency on the part of the drug to promote digestion and assimilation. It also proves the power of the drug directly or indirectly to counteract those conditions of excitability of the nervous system which are so inimical to nutrition.

The usual tendency to pigmentation of the skin so common in melancholia was checked, as also the dry character of the skin and its appendages, which was replaced by a well-nourished, smooth appearance.

The promotion of sleep was perhaps the most unexpected and gratifying result of the exhibition of naphthalin. In a few cases single doses of the drug were sufficient to induce sleep, but in the more severe cases and in the majority of the cases treated it required the continuous administration for two or three days before the sleep habit was restored.

When fully under the influence of naphthalin the patients slept normally and naturally for seven or eight hours, and awoke apparently refreshed.

In one case, where for three nights in succession 20 to 30 grains of sulphonal did not cause sleep, one dose of naph-

thalin (30 grains) gave the patient a good night's rest, and continued to do so upon repetition each night.

In the present negative state of our knowledge with regard to the mode of action of hypnotics, it is, of course, impossible to state definitely whether naphthalin is a direct hypnotic in the sense that paraldehyde or sulphonal is, but I am inclined to believe that it is not. 1. The sleep was undoubtedly not narcotic in its nature. 2. It did not require an increasing dose of the drug to continue its action each successive night once the sleep habit had been induced. 3. There was no increase of motor restlessness, mental distress, or excitement on the day following a good sleep.

Therefore it appears more likely that the sleep-inducing qualities of naphthalin are of an indirect nature, and are due to the suppression of those causes that prevent normal sleep.

The Mental Symptoms.—What has just been remarked regarding the hypnotic effect of naphthalin applies equally to its action upon the nervous system. It has probably an indirect, but it may also have some direct, influence upon the cortex. I have been unable to discover any objective physical signs indicative of any special action upon the central nervous system, nor have any of the patients complained of any subjective sensations or unusual experiences.

The drug undoubtedly cut short some of the attacks, chiefly milder melancholias. In the majority of cases it did not shorten the period of mental disturbance, but it modified the symptoms to a marked extent. The mental distress and motor restlessness of melancholia rapidly disappeared, the suicidal cases became quieter, and the tendency to impulse in all the cases was almost entirely removed. The aspect of a ward in which five or six recent acute cases of melancholia lived was so much modified by this treatment as to be in itself a sufficient justification for the use of the remedy. These (female) patients represented most of the ordinary clinical varieties of melancholia, but gradually the distinctive symptoms of each variety disappeared, and the patients, though continuing to be melancholic and delusional, became sedate, industrious, less dangerous to themselves, and less troublesome to their nurses.

This power of the remedy to modify the prominent, troublesome and distressing symptoms of acute melancholia is all that I now claim for it.

With regard to its use in mania, I am not at present prepared to make any statement. In one case of acute mania in an adolescent subject it induced normal sleep, and by means of single doses administered each evening sleep continued to be secured to the patient. At the same time the patient rapidly gained weight.

I feel justified, therefore, in summarizing my knowledge of naphthalin in the treatment of certain forms of acute mental disease as follows :—

1. The drug proved safe and harmless in all the cases. As much as 170 grains were given to one patient in twelve hours with no evil effect.

2. It failed in several cases to produce any effect, but some of the failures I now attribute to the fact that the drug was not pushed far enough in sufficiently large doses.

3. Its influence upon the bodily condition was to promote nutrition and to induce normal sleep.

4. Its influence upon the mental state was to modify and abate the distressing and more violent symptoms, and to hasten on a condition similar to commencing convalescence.

5. The purely psychical disorder of the brain was in no way affected by the treatment.

The Payment of Asylum Patients for their Work. By CHARLES MERCIER, M.B.*

It is unnecessary to expatiate to this Association upon the extreme desirability of inducing the patients in asylums to employ themselves usefully, nor is it needful to dwell at length upon the extreme difficulty that is often experienced in so inducing them. It may be taken as a fact that many inmates of asylums who are able to work are unwilling to do so, and, if we listen to their explanation, the unwillingness is not altogether unreasonable. "I was placed here," such a patient will say, "against my will. I did not come of my own accord. I am under no obligation to facilitate the plans of those who put me here, nor of those who keep me here. My refusal to work is a protest against the deprivation of my liberty. If I have to engage in the work of the asylum I should, in the first place, forego my protest, and to that extent admit the justice of my incarceration;

* Paper read at the Quarterly Meeting of the Association, November 17th, 1892.

and in the second place, by making myself useful to the authorities, I should give them a positive interest in detaining me here all the longer. Besides, why should I give the benefit of my skill and experience free, gratis, and for nothing to those to whom I am, to say the least, under no obligation? The labourer is worthy of his hire. Before I came here I worked hard and long. I had no objection then to work, and why? I tasted the reward of my labour. I was paid for what I did, and the more I worked the more payment I received. Pay me here for my labour, and I am willing to work for you."

Such may not be the very words of the patients who refuse to work, but such is the sense and the meaning of the answers that are daily received by the officers of asylums who try to induce patients to employ themselves, and it is impossible not to admit the reasonableness of the reply. Such patients do, it is true, often at length take to work from very weariness of their idle lives, but this is a motive that cannot be relied upon, for in some cases the love of idleness grows by indulgence until all inclination to work disappears, and in others, even if industrious habits are at length assumed, the golden moments have been lost; the early weeks or months of the malady, when the influence of steady occupation in promoting recovery is most important, have slipped by in idleness and *ennui*, and with them has gone the best chance of the patient's recovery.

To obviate the unwillingness of patients to work, and to supply them with an inducement to industry, it has been long recognized that some sort of reward must be held out to them as a return for their labour; but the reward that has hitherto been offered, which takes the shape of beer, of tobacco, or of a trifling addition to the diet, is quite inadequate, both as a reward for the amount and quality of the work that is done, and as an inducement to idle patients to become industrious. Some further payment is urgently required, but the difficulties in the way of affording a further payment must be admitted to be great. That payments cannot be made in money is almost self-evident. Pecuniary payments would afford means for the purchase outside the asylum of articles which it is most undesirable that patients should possess, and, moreover, would place in the way of both patients and attendants most undesirable temptations to theft and swindling of various modes. At the same time there are very great objections to payments in kind. A pay-

ment in kind does not satisfy. It deprives the payee of the pleasure of purchasing ; it obliges him to accept his payment in a certain form, which may perhaps be distasteful to him, and which he will be sure to consider inadequate ; and, as at present practised, it rewards at the same rate the most highly skilled labour of the most industrious and the occasional activity of the most unskilled.

It is, however, possible to devise a mode of payment which offers all the advantages of money payment, and obviates to a very great extent its disadvantages. This is by creating a token currency for use in the asylum, in which payments to the patients could be made, and purchases by them could be allowed. It would be easy to cut or stamp sheets of brass or copper into tokens of convenient size, or to issue instead of them credit notes of a very low face value, say one half-penny, and to pay these weekly to the patients—not, of course, to the amount of the value of the work done, but in some proportion to the value of the work, and with some reference to the nature of the work. These tallies or tokens or notes should be exchangeable at the stores of the asylum for such various commodities as are valued by patients—for tobacco, snuff, writing paper, pencils ; for jam, marmalade, cakes, sardines, saveloys, sugar, treacle, eggs, and other eatables ; for ribbons, cheap lace, neckties, handkerchiefs, artificial flowers, and a hundred and one other things which experience and inquiry would soon suggest. I should propose that the jams and other eatables, divided into portions of the value of one token, and each portion just sufficient for eating with one meal, should be arranged at tea time on a table in the dining hall, and the patients should be able there and then to purchase additions to their meal. For other commodities a shop should be opened once or twice a week.

Supposing that the face value of ten tokens or notes were fixed at a half-penny, this sum would purchase, of the qualities ordinarily used in asylums, a quarter of a pound of jam, a quarter of a pound of sugar, a quarter of an ounce of tobacco, a quarter of an ounce of snuff, two quires of note paper, or a quire and eight envelopes, half-a-pint of beer, and so on.

The present payments in kind should be altogether abolished, and patients should be allowed to purchase if they pleased the same quantities as are now allowed to them. The same rule would hold as regards tobacco, and the payments made to the patients should, of course, be sufficient to

enable them to purchase as much as they now receive by allowance, and something over.

The collateral advantages of the system of payment here advocated would be many and great.

1. It would supply a disciplinary agent of the most direct and effectual and often least obnoxious character, for it would enable fines to be imposed upon patients for misconduct, a punishment that they would feel as keenly, and that would be without the manifest objections of the punishments now in use. If the associated entertainments, for instance, are to be regarded as a means of treatment, then certainly no patient, who has shown by derangement of conduct his need of treatment, should be excluded from them as a punishment.

2. It would enable some extra advantage and reward to be held out to those patients whose occupations are of a repulsive nature, such as those employed in the foul laundry.

3. It would contribute enormously to the well-being and contentment of the patients, for it would supply, at any rate in some degree, what is now so conspicuously lacking in their lives, viz., an object, an aim of some sort. Too much stress can scarcely be laid upon the utter emptiness of the lives of the great mass of patients in asylums. Anything that would give them an object in life, an incentive to exertion, something to which they could look forward, something in which they could feel a close personal interest, would be the greatest amelioration of which their lives are capable, and this end would certainly be, to some extent, attained by the system that is here advocated. It would give them an incentive to exertion; it would place within their reach opportunities of obtaining things that they may now perhaps dream of, but can never hope to possess. It would afford to all the working patients the pleasurable excitement of a daily or weekly visit to the shop. It would give to them in their own eyes, and in the estimation of their fellows, some degree of that consequence and importance that is conferred by the possession of property. True, the property is not large, but among the blind the one-eyed is king, and among an assemblage of paupers, not one of whom has a mag to call his own, the possessor of a very trifling amount of purchasing power becomes a person of consequence.

4. An exception to the inconvertibility of the token coin-

age might be made upon the discharge of a recovered patient from the asylum. The value of whatever token coinage he had earned and saved might then be presented to him, and not only would such a plan be an incalculable boon to pauper patients upon leaving an asylum, but there would be added a very strong incentive to convalescent patients to work while waiting for their discharge.

5. Lastly, the financial results would be found to be very advantageous. Difficulty there might be, and probably would be, at first with the financial authorities of the asylum, but this difficulty would be overcome when it was brought under the notice of the authorities that a system of payment of patients, similar in principle to that here proposed, though differing in the details of its working, has actually been in force in the criminal asylum at Broadmoor for the last 25 years, and has been found not merely beneficial, but actually financially profitable in its working. Of this system, the initiation of which was due to the foresight and energy, and the working details of which were settled by the administrative ability of Dr. Orange, the then superintendent of Broadmoor, I was in total ignorance until the notice that I was to read this paper appeared on the agenda of this meeting. Upon seeing that notice Dr. Nicolson, the present superintendent, was kind enough to invite me to visit Broadmoor, and to examine the system that Dr. Orange had so successfully devised. I find that at Broadmoor the value of the patient's labour, of whatever kind that labour may be, whether that of skilled artisans, of needlewomen, or of ward cleaners, is estimated, either by time, at rates varying from 2d. per hour upwards, or by the piece. However estimated, the patient is given, in two books of the asylum, credit for the value of the work that he does; not for its full value, but for a value strictly proportionate to its full value, that is to say, for every shilling that his labour is worth he is credited with 1½d. A pass-book is issued to him containing a complete statement of the amount to his credit, and this amount he may expend in any way he pleases, subject to the sanction of the superintendent. He may traffic with other patients, the superintendent being satisfied that the price given and taken is a fair one, or he may send in a requisition for any commodity up to the value of his credit balance. There is no coinage, token or other; the whole transaction is carried on by means of book credits and debits entered against the names of the patients.

The most important result of this scheme is that it is a financial success. A sum of money exceeding £700 is annually placed in this way to the credit of the patients, and great part of this is expended for them, and it is estimated by the asylum authorities—and let me suggest that the officials of Her Majesty's Treasury are not easily satisfied as to the propriety of expending the national funds—it is estimated that the sum thus expended is much more than recouped by the increased value of the labour that the patients are thus induced to perform.

CLINICAL NOTES AND CASES.

Cases of Hereditary Chorea (Huntington's Disease). By W. F. MENZIES, M.D., B.Sc.Edin., M.R.C.P., Senior Assistant Medical Officer, Lancashire County Asylum, Rainhill. (*Illustrated.*)

(*Concluded from p. 568 of Vol. xxxviii.*)

A short account will next be given of the other cases I have had the opportunity of examining.

CASE II.—Tickle (D. 16), sister to the previous patient, was admitted into Rainhill Asylum, 12th August, 1887, from the County Asylum, Lancaster, where she had been for four years. History: Ten years ago had a disappointment in love, and has ever since been of a sombre and depressed temperament. Six years ago the tremors commenced, and about the same time her mind became dull and her memory poor, while depression was more marked. The jerkings slowly increased, and fits of violence became common, so that she was dangerous to herself and others. On admission she was suffering from advanced phthisis, and was very thin and weak. The chorea was almost in abeyance. She was unable to stand, but could sit up. Pupils dilated and insensible to light; margins slightly irregular. Muscles of expression paralyzed, has right ptosis. Thyroid gland enlarged. Patellar jerk increased, no ankle clonus, no superficial reflexes. Dementia is far advanced. She can barely tell her name, does not know her age, or where she is. Takes little notice of what goes on around her, says she feels weak and ill, but has no pain. Articulation most indistinct, lips and tongue tremulous. Heart weak, no bruit, urine normal. Thus the general weakness cloaked the usual signs, but Dr. Harbinson, of Lancaster Asylum, who himself twelve years ago published the first English recorded cases,

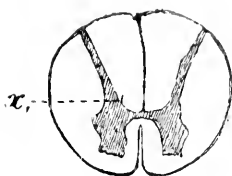


FIG. 1.

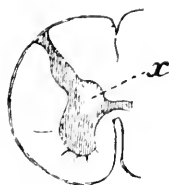


FIG. 2.

Fig. 1 is a diagram to show condition of Clarke's column between 11th and 12th dorsal.

Fig. 2 is copied from Obersteiner, and shows normal cord at 12th dorsal; x, Clarke's column.

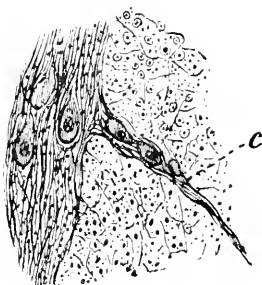


FIG. 3.

Fig. 3 shows Clarke's column as seen in a few sections just above 12th dorsal on the left side. The bulging "x" in Fig. 2 seems here to be represented by a process "c" from the posterior horn, containing a couple of ganglion cells. Though this process is indicated in Fig. 1, it was too small to be detected by the naked eye.



FIG. 4.

Fig. 4 shows areas of degeneration (dotted). It is not meant to indicate the relative amount in different parts accurately.

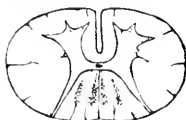


FIG. 5.

Fig. 5.—Cervical enlargement, showing increase of connective tissue in postero-median and postero-external columns.

TO ILLUSTRATE DR. MENZIES' CASE.

told me that while under his care the woman displayed the ordinary signs, but dementia was disproportionately advanced. She died fourteen days after admission. Post-mortem—besides the pulmonary tuberculosis, slight renal cirrhosis, and a small spleen, with fibrous capsule—there was nothing of note in the trunk cavities. Dura mater normal. Brain 1,061 grammes. Considerable excess of subdural fluid. Membranes thickened all over, general opacity of arachnoid. Brain, as a whole, unusually firm, membranes strip everywhere with abnormal ease. Right hemisphere 425 grammes; left 443 grammes, both stripped. Much general wasting, no local atrophy. Grey matter about $\frac{2}{3}$ normal thickness. Striation well marked. Cortex and white matter both rather pale, latter very firm, ventricles dilated, floor smooth. No noticeable change in basal ganglia or cerebellum. Pons and medulla firm. No microscopical examination was made. The brain was evidently overgrown with sclerosis, and the grey matter atrophied.

CASE III.—Tickle (F. 5), a boy of 13. The only abnormality is an irregular jerking of the fore-arm and hand when he endeavours to grasp an object, as in eating; the thumb turns downwards and the object is often knocked over. When his attention is called to it he can control it, but it recurs as soon as he forgets about it. He is a decidedly intelligent lad. Knee-jerks normal. Whether this case will develop remains to be seen, but in any case the relationship here observed between the genesis of a habit spasm and an organic disease of the higher motorial regions is of more than passing interest.

CASE IV.—Tickle (D. 48), male, an inmate of Prescott Union Infirmary, where, through the kindness of Dr. Hall, the medical officer, I was able to make an examination. He is totally confined to bed, but can sit up. The muscles are flabby, but not wasted. Subcutaneous fat abundant. The tremors marked in the thighs, trunk, upper extremities, and face, especially the two last, but in the legs have mostly given way to rigidity. He is continually throwing his arms about, turning and twisting his hands in and out, and going through every variety of movement. One or other side of the mouth may be drawn up, the head rotated or extended, the eyes blinked, or the corrugator supercilii thrown into strong contraction. The abdominal muscles, intercostals, diaphragm, and larynx all share, so that respiration is momentarily interrupted by a sharp snorting groan. Sensation is normal—no history of pain. He can describe accurately where he is touched, but cannot execute the movement of pointing out the place, the endeavour ending in more violent jerkings than usual. Cannot protrude his tongue at all. Knee-jerk and plantar reflex excessive, ankle and quadriceps clonus strongly marked, wrist and triceps jerk present, cremasteric, abdominal, and scapular reflexes absent. The left lower extremity is somewhat more affected than the right, and the same holds for the face.

Right pupil 3.5 m.m., left 3 m.m.; latter irregular in margin, both react freely. Vision, optic disc, and fundus normal. Hearing normal. No R.D. Heart perfectly normal and regular, action of bowels and digestion unimpaired. Urine normal. The cerebral condition is one of demented contentment. He smiles and nods his head in response to questions to which he cannot articulate an answer. Seems to understand most that is said to him, and knows where he is, but has a very imperfect idea of the flow of time. Attention poor. The emotional element becomes prominent when anyone gives him bad tobacco. He tosses it down, screams and ejaculates incoherently, and endeavours to strike the donor, while the movements become more tumultuous than ever. This is the most advanced case I have seen, and the cortical atrophy, with sclerosis in cord and brain, must be extensive.

CASE V.—Dixon (C. 7), female, admitted into Rainhill Asylum, 10th September, 1887, aged 49. She has been married 30 years, and has six children. The jerks have prevailed for ten years. It does not certainly appear whether dulness and loss of memory were concomitant or sequent. For two years she has been more or less maniacal, and at last so violent that her relatives cannot keep her at home any longer. The excitement partakes almost entirely of the spasmodic emotional type. She has twice attempted suicide (drowning and hanging). The weakness and jerkings have progressed steadily. On admission she was too weak to stand alone. The movements were of the usual type. Sensation and muscular sense normal, plantar reflex absent, knee-jerk excessive, no ankle clonus, triceps jerk present. Heart, lungs, and abdominal organs normal, urine normal. She was weak-minded and happy, dull, uninterested in her surroundings. Memory very poor, attention small, judgment none. Probably the advanced dementia was the most prominent feature. During residence she had frequent attacks of emotional depression, and would cry aloud for hours. Opposition to her wishes was a common cause of these outbursts. On 9th February, 1888, she was seized with an apoplectiform attack, in no way differing from those seen in general paralysis; coma, stertor, and general flaccidity were present, all jerkings and reflexes abolished. Temperature reached 103° F. She pulled round in a few days, but remained permanently weaker and thinner, and the movements were less under control. Articulation was now unintelligible. This attack is of great interest, and is the only one I have been able to hear of in any case of the disease. The patient died 3rd March, 1889, of tuberculosis of lungs and intestines. The brain and cord were removed for examination, but there is no record of the result. I remember that there was general increase of neuroglia, as evidenced by unusual firmness. There was also a hæmorrhagic membrane on the cord, which may bear relationship to the apoplectiform attack.

CASE VI.—Dixon (C. 14), male, 34, still living at home. He began to be affected at 26, and has for long been unable to work. The tremors are typical, but not very conspicuous. General muscular weakness is more prominent, and the gait is slow and unsteady. Sensation and muscular sense normal. He is a well-nourished man with no muscular atrophy. Plantar reflex absent, knee-jerk somewhat brisk, scarcely abnormally so. Tongue protruded in a jerky manner. Speech slow and dragging. He experiences a difficulty in starting his sentences, but these, when started, are fairly coherent. Pupils equal and normal in reaction, media clear, myopic shadow marked, disc and fundus normal, Vision $\frac{3}{13}$. Fields of vision normal. No R.D. Mentally he is fairly clear, but shows the same loss of apperception and attention as the other cases. He is contented and careless. His wife says his temper is most uncertain, but he has so far not been violent. He lately went to the Royal Infirmary, Liverpool, but after a few days grew restless and discontented, and refused to stay longer.

CASE VII.—Dixon (C. 15), male, 32, younger brother to the last. This is an incipient case. At present his intelligence is good, and when I called to see him I found him engaged in solving quadratic equations. Contrasted with this excellent grasp of present events was his uncertain memory for the past. He was quite dubious as to how long he had been married, the age of his children, and the order in which they were born, and his wife remembered far more about his own family than he did himself. He presented a strange picture, aware that the fatal disease was commencing, yet most anxious to conceal it. He sat bolt upright, and did not attempt to rise when I entered, his knees were kept pressed together, hands clasped, and eyes fixed rigidly on the opposite wall, thus making every preparation to control and hide the slight jerks which were at intervals apparent in fingers, forearms, and legs. His tongue is steady, pupils normal, knee-jerks not exaggerated. During the conversation he frequently lapsed into dreamy inattention, from which he woke with a start when his wife spoke to him. I did not care to make a complete examination, dreading an outburst of temper, but shall endeavour to keep the case in sight.

Remarks.—Ætiology.—Huntington's chorea is probably one of the most hereditary of all diseases. In one of my families 25 per cent. of traced individuals were affected, and 50 per cent. of those over 12 years old; in the other, where the type was one of later appearance, nearly one-third of the adults suffered. Other observers have noted a higher percentage still. The age at which it appears, generally speaking, precesses generation by generation, but the exceptions are numerous,

and the rule far from strict. Those ascertained are here tabulated:—

TICKLE.			DIXON.		
Case.	Age at onset.	Age at death.	Case.	Age at onset.	Age at death.
B. 1	—	70	B. 2	46	—
C. 2	40	44	B. 3	—	60
C. 4	30	—	B. 5	—	62
C. 5	24	38	C. 1	30	50
C. 6	—	43	C. 2	40	—
C. 7	—	36	C. 6	45	53
C. 9	16	—	C. 7	39	51
C. 11	—	53	C. 9	40	48
C. 12	30	50	C. 14	26	Alive (34)
D. 15	18	Alive (22)	C. 15	32	Alive (32)
D. 16	34	40			
D. 17	28	32			
D. 23	29	35			
D. 48	36	Alive (43)			
E. 8	26	40			
E. 9	31	Alive (33)			
E. 10	25	Alive (26)			
E. 11	20	Alive (23)			
Average age	27.6	43.7	Average age	37.2	54
For both Families.					
Average age at onset				...	31.1 years.
" " death				...	47.3 "
" duration of case...				...	16.2 "

Sex.—The two families consist of 67 males and 71 females, as well as 36 of sex unascertained. There were affected 26 males and 16 females. This superiority in the males is not due to a preponderance of male patients, for those who had children were 18 males and 23 females, and of the affected members 14 males and seven females were parents, so that at

least twice as many men are affected as women. There is no tendency to alternation of the sexes in successive generations, either parent being liable to bequeath the disease to son or daughter.

Other points in the ætiology are the absence of any diathesis, especially a freedom from rheumatism.

Pathology.—The clinical signs of this disease are so identical with those of ordinary rheumatic chorea that we are driven to conclude that, whatever may be the nature of the lesion, the position in the nervous system is the same. Where may we reasonably seek for it? Hitherto the results of post-mortems have been most unsatisfactory, for early cases rarely die, and advanced ones show gross tissue changes quite sufficient to cloak the slight alterations presumably responsible for the symptoms. A minute microscopical examination of both hardened and fresh sections in an early case is still a desideratum.

We can at once exclude the cord, for the knee-jerk is never lost, and in early cases, sensation being normal, is not increased. Nuclear lesions of the medulla are always wanting, the elements of speech are always perfect, letters are never misplaced, syllables never omitted. The ataxia might suggest the cerebellum; but in one case of an acute lesion, which was for some days limited to one lobe, none of the cerebral signs here seen were noticed. A thalamic lesion has given rise to choreoid movements, but the association of mental defect with these limit our choice to the cortex.

Possibly the large motor cells of the third layer are defectively inhibited, either by disease of the higher cells or by interruption of connecting fibres. The latter is more probable, for the cerebral phenomena of an early case suggest no organic defect, but only a want of proper control, as evidenced by the rise of the emotional element. The simplest explanation thus assumes disease of the terminal fibres of the "cerebral segment," just as primary spastic paraplegia is the result of a similar lesion of the upper cerebro-spinal segment. Functional over-action may lead to the descending cord changes diagnosed in advanced cases, as happened to the hysterical girl mentioned by Charcot. Such a pathology reconciles the few facts of morbid anatomy hitherto collected, the degeneration of various cord tracts, with hypertrophy of the motor cells in the anterior horn, found by Cirincione and Mirto; the atrophy and sclerosis of the internal capsule with destruc-

tion of the cornual cells in the cervical cord, described by Harbinson; and the general sclerosis noted in my own cases and those of others. One condition always found is an overgrowth of the connective tissue element, giving abnormal firmness. Now it is possible that this growth of neuroglia may, by pressing upon the efferent, afferent, or commissural fibres, so affect either the sensations which regulate movement, the currents to the muscles themselves, or especially the direction, inhibition, and co-ordination of the large cells in the motor regions by those in the higher parts of the brain, wherever these may be situated, as to cause a partial dislocation of the muscle functions either by interruption or irritation. The implication of motion without sensation is just what we should expect in most cases, but in the more advanced ones some disorder might reasonably be looked for. It should be remembered that the special senses are not involved at all, and that for years there is no loss of the lower ideational centres, memory, judgment, reason; but only of the highest inhibitory functions. So with our present knowledge of brain function guesses at localization are futile.

The theory that certain embryonal connective tissue elements remain latent till late in life is one more easily formulated than either proved or disproved. The sclerosis is too slight and too wide-spread to render it probable, and the theory is less likely to hold water in hereditary chorea than in cancer, where it has been nearly proved to be false.

Evidence of a slowly acting micro-organism in the environments at home or at work is wanting, for although it be true that many of the unaffected leave the district while the sufferers remain, and although if the affection once cease it rarely reappears in a subsequent generation, yet there is no case in which it has developed in the wife of an affected husband, or *vice versâ*, even after the lapse of fifty years.*

* While this article was passing through the press, the woman Jane Tickle died of tubercular peritonitis. A post mortem examination was made by Dr. Wynne, Pathologist to Rainhill Asylum, and the notes are appended at the end of the paper. It will be seen that general sclerosis of the brain was present, but not to such a marked degree as in other cases. The atrophy (?) of the occipital lobes was most marked, but seems to have produced no symptoms. The myopia and nebulae accounted for the defect in vision, and the fields and colour perception were normal. Probably the sclerosis of the antero-lateral ascending tracts deserves special attention, but in other respects the result of a minute microscopical search (over 100 sections) must be regarded as disappointing. The other cases I saw post mortem had no occipital atrophy. With regard to

Summary.—One of the first points which strike anyone reviewing the comparative literature is that different families appear to affect different clinical types. All writers agree that the disorder is essentially a chorea, that the jerking is at first partly under control, that the knee-jerks are generally increased, and that cerebral defects are common. Yet all are not agreed whether or not the movements cease during sleep. According to Waters, signs of the ailment appear only after middle life, while Diller mentions a generation where ten cases all developed before twenty-five years of age. Huntington considered it more common in men, Sinkler in women. Caviglia thought it equally common in both. Therefore, with Dr. Reynolds, I would deprecate dogmatism until some more extensive series of cases have been collected, extending through more generations. My own cases explain that some observed differences arise from studying the disease at different stages of development, *e.g.*, the persistence of spasms during sleep. The essential points of the disease may be summarized thus: At first there are only the jerking and the associated emotional state, leading to attacks of the so-called mania or melancholia, then descending changes cause increase of knee-jerks and general muscular weakness, while the cerebral sclerosis results in true dementia. Lastly the patient dies, not so much of the disorder itself as from some intercurrent affection, to which his paralyzed condition lays him open. The most common of these is tuberculosis, probably because he drifts into a workhouse hospital or asylum infirmary, where unfortunately, the bacillus is but too frequent.

To give in detail the results of other observers would swell this article much beyond its proper limits. These results can be obtained by reference to the original treatises; a relation of observed facts is of greater moment with our

Dr. Wynne's account of the post mortem changes, there was, in addition, a pronounced increase of connective tissue (almost a sclerosis) of the anterior $\frac{3}{4}$ of the postero-median columns in the cervical enlargement, and to a less degree of the postero-external. The central canal was partially obliterated by connective tissue overgrowth in the cervical region, wholly in the dorsal and lumbar. That the processes of Clarke's column were less conspicuous than normal is not beyond the range of dispute. Other observers have met with sclerosis of the antero-lateral ascending tracts. Is it possible that interruption of the muscle sensations ascending to the cerebellum, causes erroneous reflex judgment, and so sets the muscles into clonic spasm, this spasm then causing a second upward sensation, which now reaches the cortical area of consciousness, and makes the patient aware of the contraction?

present knowledge of the disease than protracted discussion of theories more or less inadequate to account for the symptoms.

I close with a request to asylum medical officers to collect other cases. There cannot be many which do not, at some period or other, come under the notice of relieving officers of the various unions, through whose agency every affected family in England could without much expenditure of labour be traced, and thereby many questions regarding a morbid entity not wholly devoid of interest could be finally disposed of.

SUMMARY OF POST-MORTEM NOTES OF JANE TICKLE (HEREDITARY CHOREA).

Post-Mortem made seventeen hours after death. Age 33. Body much wasted. No bed sores. No lividity.

Cranium.—The skull presented no abnormality either in shape or density. The sinuses were fairly full of partly clotted blood. There were no old thrombi. The main vessels were quite healthy.

Dura Mater.—A little above average thickness, but not adherent either to skull or pia-arachnoid.

Subdural Space contained a little excess of clear fluid.

Pia-arachnoid was absolutely free from any opacity or thickening and was nowhere adherent. There was a slight excess of fluid, chiefly in the sulci. There was no hyperæmia.

Cerebral Hemispheres.—The whole brain weighed 1,132 grms. The right hemisphere weighed 459 and the left 457 grms.

There was distinct, though slight atrophy of all parts of the cerebrum, as evidenced by the rounding off of the convolutions and widening of the sulci. In the temporo-sphenoidal lobes the atrophy was scarcely noticeable.

The occipital lobes presented a symmetrical diminution in size, which from the condition of the convolutions and sulci would seem to be at least in part developmental and not due to atrophy. The cuneus on the left side was very distinctly atrophied.

On the whole the atrophy was greater on the left than the right side of the brain, and more distinct in the paracentral region than in the frontal.

Cortex Cerebri.—The tint of the grey matter was quite normal. Its consistence was in all parts rather firmer than in health. In the temporo-sphenoidal lobes, it was, as is usual, less firm than elsewhere. There was slight narrowing in all, except the occipital lobes. The striation was rather more distinct than usual. Vascularity normal.

Lateral Ventricles were not dilated. The ependyma was slightly rough, but not distinctly granular.

Basal Ganglia presented nothing abnormal to the naked eye.

Cerebellum 139 grms. No abnormality.

Pons 15 grms. Rather softer than other parts of the brain. The grey matter seemed less pigmented than usual.

Medulla Oblongata weight 6 grms. Rather small. The grey matter of a paler tint than usual.

Spinal Cord.—Nothing beyond an unusual firmness detected in the fresh state.

THORAX.—The lungs were tubercular. Numerous small vomicae in upper lobe of left, and small patches of consolidation scattered through right.

Heart.—A little hypertrophy of left ventricle.

ABDOMEN.—*Spleen*.—Capsule thickened. Increase of connective tissue.

Liver.—Fatty.

Kidneys.—Capsule thick, very adherent. Fibrotic kidney.

Intestines.—Matted together, and the whole peritoneum covered by tubercular deposits and lymph. The tubercles varied in size from the ordinary "miliary" to masses the size of marbles.

MICROSCOPIC EXAMINATION.—In considering the changes found in the brain it must be borne in mind that the patient was a fairly advanced phthisical subject, and for some time before death had tubercular peritonitis with diarrhoea.

Fresh sections from various parts of the cerebrum were examined, and all showed the same changes, differing only in degree according to the amount of atrophy present in the different regions. The changes noted were :—

1. A slight coarseness of the neuroglia in the first layer.
2. A slight thickening of the vessels.
3. Degeneration of the cells in all layers. The degenerate cells were characterized by loss of processes, a granular condition of the protoplasm, and very often vacuolation of the nucleus or cell-body. This vacuolation did not specially affect any particular layer of cells, but was more abundant in the deeper than the more superficial, or at least was more readily detected.
4. In hardened specimens spider cells were detected in very small numbers near the vessels in the white matter, but neither in fresh nor hardened specimens was there any appearance of miliary sclerosis.

Sections of the medulla showed a thickening of the ependyma, and an undue coarseness of the connective tissue beneath. Sections of the cornu ammonis and gyrus hippocampi showed vacuolation of the large pyramidal cells, and the presence of "colloid bodies" in the endothelial lining of the fimbria.

Spinal Cord.—In hardening, a one per cent. solution of bichromate of potash was used for twenty-four hours, followed by a two

per cent. solution frequently changed until the cord was ready for cutting. No alcohol was used until after the sections had been stained.

In staining, Weigert's, Pal's, and Marchi's methods were used, and some sections were stained with picrocarmine or with Ehrlich's hæmatoxylin alone. The results obtained by all the methods were the same.

White Matter.—In all parts of the cord Gower's tracts and the direct cerebellar tracts showed scattered groups of degenerated fibres. In the lumbar region a zone bounding the periphery of the cord from the anterior commissure to the exit of the posterior roots showed an almost entire absence of healthy fibres.

Grey Matter.—The cells were everywhere unusually pigmented and granular. Picrocarmine sections treated with osmic acid and those prepared by Marchi's method showed intensely black clumps of granules in nearly all the cells. This was most conspicuous in the cervical regions.

Clarke's column appears distinctly abnormal, especially in the lower dorsal region, where it should be most conspicuous. Sections from between the eleventh and twelfth dorsal nerves did not exhibit the characteristic swelling of the posterior horn produced by this group of cells. In some sections no cells at all could be seen; in others one or two highly pigmented oval cells with no processes. Sections at the junction of the dorsal and lumbar cord showed the cells of the column being displaced by growth of connective tissues, and their proper area encroached upon. Just below this the column was represented by an isolated cell, or not at all.

Throughout the upper and middle dorsal cord the column was ill-developed, and very often no cells were found. When cells were present they were always more numerous on the left side; that is, if there were two or three on the left side there would be one or none on the right.

Vessels.—Here and there distinctly thickened vessels were present in the anterior horns; elsewhere they were dilated and full of blood.

Medulla Oblongata.—Nothing abnormal was detected in sections prepared like the spinal cord. I was unable to make certain of any degenerated fibres.

From these observations it would seem that the degeneration of the cerebellar tracts and Clarke's columns was the characteristic lesion in this case.

There was undoubtedly a widespread though slight sclerosis, as evidenced by the unusual firmness of the brain and spinal cord. Fibrotic changes were also noted in the kidney and spleen. As regards the brain, the evidence of disease was abundant, but the changes met with were of a very common character, and presented as far as I could see nothing characteristic. The absence of

thickening, opacity, and adhesion of the soft membranes excludes, I think, any inflammatory origin of the cortical degenerations. What effect the bodily condition of the patient may have had on the cortical grey matter cannot be estimated, but I think a good deal of the cell degeneration may be set down to that cause.

I do not see any sufficient ground for assuming a cortical lesion for this disease. May it not more probably be a slight sclerosis sufficient to hamper but not abolish the control of movements? Such an obstruction might be situated in the cord.

At any rate, in future cases it would be well to search for the lesions here shown in the spinal cord. If these lesions are found to be constant it will be time enough to construct a theory of the pathology of hereditary chorea.

In view of the recent experimental work on the spinal cord, it is interesting to note that the patient in this case, though carefully examined, exhibited no alteration of sensation.—E. T. WYNNE, M.B.

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Case of Abnormal Development of the Scalp. By T. W. McDOWALL, M.D., County Asylum, Morpeth. (With Plate.)

The accompanying illustration represents what is believed to be a hitherto undescribed abnormality of the scalp. The condition was discovered accidentally. I observed an attendant cutting a lad's hair, and remarked that he was not doing it very well, as there appeared to be numerous scissor-marks. It was explained that the marks were due to the arrangement of the hair. This led to careful examination of the whole scalp. Its condition is very well represented in the illustration. On each side there are five deep furrows, passing from behind forwards. Those nearest the middle line are straight; the others slightly curved, and they are the more curved the further they are removed from the middle line, and at the same time they diminish in length. When the hair is of ordinary length the condition of the scalp would not be suspected; it is only when the hair is very short that the furrows become evident. For the purpose of preparing the accompanying illustration the hair was cut as short as possible, but the hair growing in the furrows was necessarily left somewhat longer than elsewhere, with the result of indicating with great clearness the course and arrangement of the depressions. The furrowing of the forehead is not abnormal, but is produced by the patient whenever he is annoyed, as he was when the photograph was taken.

The patient is an epileptic idiot, aged 22 years, and has been resident in the asylum nine years. He exhibits only slight traces of intelligence. He is above the average stature, and in good bodily health. The whole right side of the body is wasted, and the limbs contracted. He is stated to be the eldest of six children, and to have been epileptic since he was one year old. He is distinctly but not markedly microcephalic. Since this congenital deformity of the scalp was discovered I have examined the heads of all the male patients, with the result of discovering another example, but not so marked.



To illustrate Dr. McDowell's Case.



This patient is also a microcephalic idiot. I have made wide inquiry in order to discover whether such a condition had ever been described before, and also to obtain some information as to its nature. All my research proved fruitless, except in one direction. Dr. Carlyle Johnstone informed me some six months ago that he had discovered two such cases, and he has been so good as to favour me with a photograph of one.

Professor Unna, of Hamburg, to whom I forwarded a photograph and description of the case, favoured me with a reply. He was of opinion that the condition of the scalp had not been previously described. He suggested the electrical stimulation along the sides of the scalp to see whether muscular contraction could produce folding of the skin in a similar direction. In his letter he continues:—"A series of stimulations along a corresponding line, producing a series of contractions and folding of the skin, would thus indicate a high development of the skin muscles, the contraction of which may account for the rest of the furrowing. As regards the comparative anatomy, I have examined several apes in the Zoological Gardens here, and found that they possess a very muscular scalp, but no amount of irritation succeeded in making them fold the skin along the lines of the folds in the scalp of your case. It would perhaps be advisable to consult an anatomist or zoologist upon this question." Professor Unna's suggestion to stimulate the scalp by means of electricity was tried, but the result was absolutely negative.

A friend was so good as to forward a photograph to Professor Kaposi, of Vienna, and I was favoured with the following communication:—"I have delayed answering your letter because I wished first to consult the opinion of the Professor of Pathological Anatomy of the city, Professor Kundrat, who has been absent for some time. I have now, however, seen him, and he says that he considers the folds to be partly hypertrophic. He has observed hypertrophies in microcephalics and in other deformities of various parts of the body.

"In this case one might conceive that the brain had not advanced in growth, but the skin was sufficient for a normal skull, and had developed independently in accordance with its own capacity for growth. But because the contents to be surrounded remained too small, the normally large skin was forced to arrange itself in folds over the small skull, and in parts became atypic, *i.e.*, hypertrophied during development. I fancy, too, that the folds chiefly correspond with the cleavage of the skin (Langer's lines).

"This, after my conversation with Professor Kundrat, coincides with my ideas on the subject. I do not know what else to say about it."

Were Professor Kaposi's suggestion correct it is probable that such a condition of the scalp would be seen much more frequently, seeing how common microcephaly is. If one may venture to offer a suggestion, it appears to me possible that we have here a retrogression to a lower type. I have not had opportunities of specially examining the heads of the animals in the Zoological Gardens, but I have seen a somewhat similar condition in dogs, and my impression is that it is very marked in lions, tigers, and animals of that class. When a dog pricks his ears the furrowing can be seen very distinctly, especially when the hair is thin.

It is probable that the exact nature of the condition will not be ascertained until a case has been minutely examined after death.

Since writing the above I accidentally came across the following passage, which clearly shows that the condition was observed many years ago, though not by a medical expert:—

"But the idiot, Bénési, inspired me with no repugnance, because he was always good and always clean, with his grey coat and his coarse shirt, whose collar cut his enormous ears, adorned with rings. I would scarcely even ridicule his stammering when it took him two minutes, in speaking to my uncle, to say, 'Monsieur Biébiéoniface.' He had a strange appearance, however, with his large nose, wide mouth, and head the size of one's fist, close-cropped, and streaked with furrows like a potato-field.

"What solicitude, like that of a faithful dog, he manifested for his blind sister, whose guide and careful guard he always was!

"Therefore it was that we protected Bénési, and defended him against the street boys, who threw stones at him and made fun of his insane but harmless fits of anger."

("The Life of an Artist," by Jules Breton. Translated by Mary J. Serran. Sampson Low, Marston & Co. 1891.)

OCCASIONAL NOTES OF THE QUARTER.

Tennyson as a Psychologist.

That Tennyson touched the finest chords in our nature none will dispute. But there are poets who have done this without being what the lamented Laureate* unquestionably was—a psychologist. “In Memoriam” is full of psychology as well as feeling. He went deep down into the springs of human thought and action. “Lucretius” is psychological in any poem in the language is.

It was our purpose to analyze Tennyson’s works from our standpoint and to show how much true metaphysics can be found, if looked for, in the marvellous products of his grand brain, with which he has enriched our literature for ever. On glancing back, however, at the old volumes of our Journal, we found an article by its first Editor which appears to us to present Tennyson as a psychologist in so admirable a manner that we decide upon reproducing it. The article, which consists chiefly of a review of “Maud,” is besides historically interesting, if for no other reason than that it marks the time when the term “psychological” was supplanting that of “metaphysical.”

It is seldom, indeed, that a physician finds occasion to review a work so far removed from the dominion of scientific literature as a poem. Prose, and that of the driest sort, is the bone upon which the medical critic is for ever destined to whet his fangs; and from poetry he is so debarred by the custom and opinion of his profession, that he dare scarcely make use of a line or two for the purposes of illustration or ornament, except under fear of meeting the reproach of flippant absurdity. Yet physicians have been poets, and good ones too; and poets the true artists of mankind have, in all ages, been our best instructors in many of the secret springs of human action, and of the maddening emotions of the soul.

Not to speak of classic writers, in what pages can we find the phenomena of insanity portrayed with more vivid truthfulness than in those of Shakespeare. There is more real mental science to be learned from the teaching of this demigod of poets than in all the metaphysical rubbish which was ever delivered from professional chairs. The study of mind in its irregular developments

* Died at Aldworth House, Surrey, Oct. 6, 1892; buried in Westminster Abbey, Oct. 12th.

appears to have as great a charm for the great English poet of the present day as it had for that prince of song. The writings of Tennyson are peculiarly metaphysical, or, to use the new term, psychological. His "Two Voices" and "Palace of Art" display wonderful psychological insight, and his new poem is neither more nor less than the autobiography of a madman. The critics have found great fault with Mr. Tennyson for choosing so disagreeable a hero, and have designated the wild poetry, wonderfully true to nature, in which the inner life of this morbid mind is depicted, as spasmodic and unpleasant. With purely literary criticism we have nothing to do; but the subject which Mr. Tennyson has chosen is one of peculiar interest to ourselves and our readers. It is the history of a madman depicted by the hand of a master, and we shall attempt to give an analysis of it, so far as it comes within our domain as mental pathologists. Let others criticize the beauties of the poetry or the irregularities and novelties of the metre; the point of view we take is, the powerfully and faithfully drawn mental history.

True to psychological probabilities, the author represents his hero as the scion of an unsound stock. His father committed suicide, or at least was strongly suspected to have done so, by precipitating himself from a rock.

"I remember the time, for the roots of my hair were stirr'd
By a shuffled step, by a dead weight trail'd, by a whisper'd fright,
And my pulses closed their gates with a shock on my heart as I heard
The shrill-edged shriek of a mother divide the shuddering night."

The father of his future mistress, Maud, is pointed at as the cause of this ruin of his house, and the death of his own parent.

The hero grows up a morbid misanthrope, hating himself and all mankind; he snarls and sneers at everything, but most of all at himself. The whole race of man seems to him too base to live, or at least to continue; the earth is a "sterile promontory," the heavens a "pestilent congregation of vapours."

He is introduced to us full of morbid emotion, a constant mental sufferer, a true example of Guislain's theory of the psychopathic origin of insanity. The utmost extent of his hopes is a philosopher's life of passionless peace, far from the clamour of the slanderous world,

"Where each man walks with his head in a cloud of poisonous flies."

But most of all he would "flee from the cruel madness of love;" he is not destined to escape this peril. Maud, the daughter of the "lean grey headed old wolf," who had ruined his father, returns with her brother to the hall, preceded by the report of her singular beauty. Maud had been his playmate in the days of childhood, and he retains in his memory an impression that their fathers had allied them.

He sees her, and finds his peace in little danger from her beauty, which is faultless; but with a "cold and clear cut face," "she has neither savour nor salt."

But the cold and clear face haunts him by day and by night.

He meets her on the moorland, and at church, and in the village street. The tender poison steals into his veins, but he resists and strives earnestly to think ill of her. He felt from the first "my dreams are bad, she may bring me a curse."

He suspects her of pride, then of falsehood, and of the baseness of endeavouring to gain his favour for the political purposes of her brother.

As the hopes of love open to him, he sees a prospect of joy in the world, which had hitherto presented to him so dark and dreary an aspect.

But if Mand prove all that she seems to be, it were different.

He still however suspects and resists, a raven ever croaking at his side, "keep watch and ward, keep watch and ward." Last of all he torments himself that her sweet and tender tone comes from her pitying womanhood, for his forlorn and unhappy condition.

As usual, the catastrophe of downright love is precipitated by jealousy, jealousy of a young coal-mine lord, whose suit is favoured by the Assyrian bull. He feels that this rival is rich enough to buy anything.

At length brighter prospects open, as he feels that the sweet girl truly loves him.

The sweet poetry which attends the avowal is not psychological, and we must therefore pass it over. Yet even in the happiness of first love his mind displays its unsound tendencies. A white curtain drawn at night makes a horror creep over him, prickles his skin, and catches his breath, because it suggests the sleep of death.

This extreme and unreasonable sensitiveness to painful impressions is often, indeed, the warning sign of mental disease.

The consciousness of an evil fate hangs over him like a pall, and excites some alarm in his mind for the happiness of his mistress. In spite of that which ought to have made him supremely happy, he continues to torture himself.

He feels that the love of this most lovely girl may rescue him from the dark path of despair in which his mind was progressing.

The love scenes are exquisitely drawn, and produce a most happy change in the misanthrope's mind and feeling. He is no longer splenetic, personal, base; his blood flows gently, sweetly on.

His present happiness enables him to look into the future: the very stars seem brighter and closer to him, since he had "climbed nearer out of lonely hell:" he feels himself perfectly blest.

The woe quickly comes. The haughty brother finds the lovers together; heaps upon her disgraceful terms, and strikes him in the face; for which, according to the Christless code that must have life for a blow, the "Assyrian Bull" is quickly called to account, and shot in a duel. Maud breaks upon the scene, "a ghastly wraith, uttering a cry, a cry for a brother's blood." When sense returns he exclaims,

"Is she gone? my pulses beat—
What was it? a lying trick of the brain?
Yet I thought I saw her stand,
A shadow there at my feet."

This spectral appearance formed the foundation of subsequent hallucination; he fled to Britany, "sick of a nameless fear."

"Plagued with a fitting to and fro,
A disease, a hard mechanic ghost
That never came from on high
Nor ever arose from below,
But only moves with the moving eye,
Flying along the land and the main—
Why should it look like Maud?
Am I to be overawed
By what I cannot but know
Is a juggle born of the brain?"

Notwithstanding his hallucination, he nourishes his love, he hears her songs and sees her beauteous form, hallucination mixes with memory, he dreams of Maud and happiness, but is awakened by the hallucination of her cry, and finds as usual the ghastly wraith by his bed-side.

"In the shuddering dawn, behold
Without knowledge, without pity
By the curtains of my bed
That abiding phantom cold.
"Get thee hence, nor come again,
Mix not memory with doubt,
Pass, thou deathlike type of pain,
Pass and cease to move about,
'Tis the blot upon the brain
That *will* show itself without."

The shadow flits and fleets before him wherever he passes; through the hubbub of the market, through the streets and squares of the wide sounding city he steals, a wasted frame; but no where, and in no manner, can he get rid of his ghastly companion.

The twenty-fifth division of the poem is indeed an interesting one to the alienist reader. The sufferer has passed from hallucination to actual delusion, fancying himself dead and buried in a shallow grave.

The dead men chattering around are the other inmates of a

lunatic asylum, in which there is no secrecy, but idiot gabble and babble, where everything comes to be known.

“See, there is one of us sobbing,
 No limit to his distress ;
 And another, a lord of all things, praying
 To his own great self, as I guess ;
 And another, a statesman there, betraying
 His party-secret, fool, to the press ;
 And yonder a vile physician, blabbing
 The case of his patient—all for what ?
 To tickle the maggot born in an empty head,
 And wheedle a world that loves him not,
 For it is but a world of the dead.”

The coal-mine lord finds him out, and pays him a visit, which is not agreeable. The hallucination of his mistress's form still haunts him, but now the last spark of love is gone.

This mixed state of reason and of delusion, and of wild emotion, partly the natural sequence of the latter, partly arising from agonizing memories, is depicted with terrible reality. At last his mood changes,

“My life has crept so long on a broken wing
 Thro' cells of madness, haunts of horror and fear,
 That I come to be grateful at last for a little thing.”

The immediate cause of the change is attributed to a dream, in which his mistress speaks to him of the hope arising from the coming wars. It was but a dream, but it yielded a dear delight. New hopes banish the old delusions, and he finds mental restoration in the activity of thought and feeling aroused by the transition from peace to war.

He becomes sane, and enters heart and soul into the excitement of battle against what he calls the dreary phantom of the North, but which happily for him is no phantom.

Such is this remarkable sketch of poetic mental pathology. It must be pronounced wonderfully true to nature. The hereditary tendency, the early and terrible shock to the emotions, caused by the father's suicide, the recluse mode of life, in which morbid feeling and misanthropic opinions are nourished to an extent productive of hallucination even at that early period of the malady ; in which mid-day moans are heard in the wood, and his own sad name is called in corners of the solitary house. All this is most true to the frequent course of events, in that period when insanity is threatening and imminent, but not actually present. Another point touched upon with the singular delicacy of this exquisite poet is the apprehension which the sufferer evidently entertains, that he will become mad. “What matter if I go mad,” he exclaims, “if once I have been loved ;” and in another mood he says his mistress' sweet influence may save him from madness or suicide. This knowledge of the impending fate is by no means

uncommon among educated persons who have strong tendencies to mental disease. We believe indeed that it frequently exists even when it is sedulously concealed.

It forms a constant source of most painful reflection, and in this manner it tends to verify its own forewarning voice.

The gradual outbreak of actual madness after the catastrophe of the duel is depicted with so masterly a touch, and in so simple a manner, that any scientific comment from our pen would be superfluous and bad taste. The madhouse canto (page 89) is wonderfully graphic and powerful. The hallucination of his mistress' form, ever present to his eye, "a hard mechanical ghost," is followed by the delusion of his own death and burial under the city pavement. The suffocative agony of sensations in a living grave are portrayed with terrible earnestness of belief; yet the power of attention and of shrewd reasoning is represented to be in great measure retained; the coal-mine lord is recognized in his visit to the asylum, and the misanthropic sarcasm is still keen and intelligent. The common medley of reason and unreason is truthfully given. A less skilful artist would have left this portion of the picture without any light, and would thus have missed the truth.

In the recovery a little poetic license is taken, since it is not probable according to pathological likelihood that he would have dreamt the dream to which it is attributed, until his cure had been considerably advanced. It may, however, be argued that patients who have recovered from insanity very frequently attribute their restoration to causes which have had little enough to do with the result. They are apt to recognize the last step of the change and not the first: so we may with fairness remove the burthen of this apparent inconsistency from the shoulders of the poet to that of the patient. How much of his restoration to mental health we may attribute with scientific probability to the strong emotions caused by the outbreak of the Russian war, it is not quite easy to determine.

This concluding part does not appear to us quite so true to nature as all the former portions of this intensely interesting mental history. There is more of the poet's license in it, which may be attributed to the absorbing interest of that great event, which he rather appears to drag in for the purpose of expressing political opinions. On the whole we are astonished and delighted at the profound knowledge of mental pathology displayed by the great poet of the age. If it were possible to enhance in dignity the study of mental disease, the deep interest which the noblest and purest of minds take in it would be attended with that effect. Let us feel ourselves fellow-students in the most deeply absorbing objects of human interest and research which have occupied the greatest minds of the human race, and we shall be the more likely to strive to be worthy labourers in that noble field.

If any of our readers would desire to have a standard, or rather a foil, by which to appreciate the truthfulness of Mr. Tennyson's poem, we recommend him to compare it with another autobiography of a madman, namely, that of Sir Eustace Grey, by Crabbe. To say nothing of the poetry or the want of poetry in the latter, we venture to affirm that it is highly improbable, if not impossible, for any person in the state of mind in which Sir Eustace is represented to be, to give so clear, connected, and circumstantial an account of himself as that which Crabbe puts into his mouth. It is, in fact, a fancy sketch; but Maud is a photograph.*

J. C. B.

Medico-Legal Aspects of Neill's Case.

The case of Neill, the Lambeth poisoner, recently sentenced to death and executed for a diabolical murder, raised several points of medico-legal interest. (1.) The highly technical character of the chemical evidence which Mr. Justice Hawkins and the jury *ex necessitate rei* accepted from Dr. Stevenson without being able, as the learned judge very frankly admitted, to follow the elaborate tests by which that distinguished expert arrived at his conclusions, has once more brought to the public notice the position of scientific witnesses in the Courts of Law. Dr. Cook, of Bristol, in a notable letter to the "Law Times," has suggested a new solution of the vexed and inveterate problem, How should scientific facts be established in juridical proceedings? Let the tribunals, says Dr. Cook in effect, recognize their own incapacity and *a fortiori* that of jurymen to understand scientific processes, and let a commission of experts be appointed to inquire into and report upon issues referred to it by the judge presiding over the trial of any complicated medico-legal case. This commission would consist of, say, three members. It would have power to call before it the expert witnesses for the prosecution, and, if there were any, for the defence; to examine and cross-examine them; to hear counsel on the matters in dispute, and possibly to see the crucial tests performed before preparing and presenting its report. This scheme, which is partly borrowed from the continental system of preliminary reports, seems to us, however, to lie open to two objections. In the first place it

* "Journal of Mental Science," Vol. ii., 1855-56.

would involve expense. The members of the scientific commission, unlike the arbitrators of a *tribunal de commerce* in France or Belgium, would have no career before them as the goal of their labours, and could not be expected to act gratuitously. Dr. Cook estimates that an annual sum of £2,000 would cover the working expenses of his proposal, and the British taxpayer could no doubt be induced to make this sacrifice if he were convinced that it contributed to the interests of justice. But a more serious objection remains behind. Suppose that the commission differed in opinion, could the judge safely advise the jury in a case of life and death to act upon the report of a bare majority? Would the jury take such advice even if it were given, and in every such case would not the tribunal be thrown back upon that very weighing of scientific testimony and balancing of scientific authority which it is Dr. Cook's great object to avoid? We venture to think that there is a more excellent way. The law has given many hostages to the principle *ubique in qua arte credendum*. The Admiralty Division hardly ever disposes of a difficult question of shipping law without the aid of the elder brethren of Trinity House as nautical assessors. Every court, from the highest to the lowest, that possesses jurisdiction in patent cases has power to summon expert assistance. In the High Court of Justice itself judicial references are scarcely less common than public trials, and under the Rules of Court the judges are enabled to call in scientific experts in every cause other than a criminal prosecution by the Crown. If this power were simply made universal the end in view would be attained without expensive or elaborate machinery. The task of advising would belong to the assessor; the responsibility of deciding would rest, as at present, with the judge and the jury. (2.) On the trial itself we do not propose to dwell. The prosecution was conducted by the Attorney-General, Sir Charles Russell, with great ability, and in the main with exemplary moderation. The defence was all that could be expected under the circumstances, but the learned counsel for the prisoner—Mr. Geoghegan—like Serjeant Shee in defending Palmer, was, metaphorically speaking, placed in a cleft-stick. He had both to impeach and to uphold the scientific accuracy of the expert of the prosecution. The symptoms of Matilda Clover's death, said the learned gentleman in substance, may not have been due to strychnine poisoning, for Dr. Stevenson is fallible, and his tests may

have yielded wrong results. But Ellen Donworth's death (with which Neill was not charged) must have been caused by strychnine, for Dr. Stevenson found it in her body, and Dr. Stevenson could not have been mistaken. A short interval of time, of course, elapsed between the use of these mutually destructive arguments which Mr. Geoghegan was compelled by the weakness of his case, and, indeed, by the very logic of his position, to employ. But their glaring inconsistency did not escape the eyes of the jury, and must have told heavily against the prisoner's chances of acquittal. There can be no doubt that Neill was properly convicted. No direct evidence of administration, indeed, was forthcoming, and the evidence of identity was so weak that we can readily understand the anxiety with which the counsel for the Crown are said to have watched the progress of the case. But the circumstantial evidence was strong enough to justify the verdict of guilty which the jury unhesitatingly returned. The alleged inadequacy of Neill's motive need not greatly concern us. To a well-regulated mind no such thing as an *adequate* motive for the commission of a crime can possibly exist, but on the unstable mental equilibrium of persons like Neill, the slightest and most obscure motive may operate with even more power. The old story told by Count Cenci to Cardinal Camillo throws some light on such judicial enigmas :

" I love

The sight of agony, and the sense of joy,
When this shall be another's, and that mine,
And I have no remorse and little fear,
Which are, I think, the checks of other men ;
This mood has grown upon me, until now,
Any design my captious fancy makes
The picture of its wish (*and it forms none*
But such as men like you would start to know)
Is as my natural food and rest debarred
Until it is accomplished."

Moreover, it is by no means clear that Neill did not act from at least an appreciable motive. He attempted to levy blackmail, and although he mistook the characters of his intended victims in England, this circumstance merely points to his ignorance of English society, and he may possibly have fared better in America. (3.) The plea of insanity which was set up on his behalf was hopelessly feeble, and was properly rejected by the Home Secretary. We have reason to believe that the American evidence contained no allegation that raised any doubt in Mr. Asquith's mind or rendered

an examination of the prisoner by one of the Crown experts necessary. We are no advocates of the indiscriminate use of the last penalty of the law, but we do believe that there are criminals for whose wickedness the only proper remedy is the scaffold, and that Neill belonged to this terrible category, and we have no hesitation in saying that the commutation of this scoundrel's sentence on the kind of testimony that was presented to the Home Office would have been an insult to the intelligence and a standing menace to the safety of the community. (4.) The mode in which post-trial pleas are now dealt with by the law is highly unsatisfactory. A prisoner is tried for murder; not a whisper of insanity is heard at the trial when the worth of the plea could be publicly determined. He is convicted, sentenced to death, and assured by the judge that he is already civilly dead. Forthwith the air becomes tremulous with rumours as to his mental state, and discharges its vibrations far and wide. A petition for a reprieve is set on foot; a secret and informal investigation by eminent experts takes place, and when the convict's days of grace have all but expired he is either left, like Neill, to go to the scaffold or reprieved, like Laurie, the Arran murderer, and sent to a criminal lunatic asylum, without any information being vouchsafed to the public as to the grounds on which the descending arm of justice has been arrested. It matters not which of these events occurs. Both are equally discreditable to the law. A condemned murderer's days of grace should not be agitated by hopes and fears of a possible commutation, but should "run" from the time when the fate of any plea or petition brought forward or presented on his behalf has been finally determined; and if a sentence of death solemnly and publicly passed in pursuance of a verdict solemnly and publicly returned by a jury is not carried into effect, the community is entitled to know the reason why. We trust that the belated Court of Criminal Appeal, which the judges recommend the Legislature to establish, will be empowered to exercise *jurisdiction* in open court over post-trial, as well as ordinary pleas, and that in any event the medico-legal reports on which capital sentences are commuted will in future be published *in extenso* in the Press. It is satisfactory to know that in this matter the interests of the public and the desire of the medical profession coincide.

PART II.—REVIEWS.

Thirty-fourth Annual Report of the General Board of Commissioners in Lunacy for Scotland. Edinburgh, 1892.

During the year 1891 the total number of officially recognized lunatics in Scotland has increased from 12,595 to 12,799. This increase is considerably less than that of the previous year, which was 282. As regards the *distribution* of the insane, the following changes have taken place during the year :—In royal and district asylums there is an increase of 12 private and 219 pauper patients; in private asylums there is an increase of 11; in parochial asylums there is an increase of 7; and in the lunatic wards of poor-houses of 7 pauper patients. The population remains the same in the lunatic department of the general prison, and in training schools for imbecile children there is an increase of three private and 12 pauper patients. In private dwellings there is an increase of one private and a decrease of 54 pauper patients. Excluding inmates of training schools and the general prison, the whole increase of registered lunatics during 1891 is 24 private and 165 pauper patients, a total of 189. The number of lunatics on 1st January, 1892, and their mode of distribution is given in tabular form on next page.

One of the distinctive features of the Scotch Lunacy Report is the broad distinction of all lunatics into two classes, namely, those who are accommodated in establishments and those provided for in private dwellings, and it is useful to consider these separately. As regards establishments, an increase has taken place in both the private and pauper class. In the first, the increase of 23 is below the average annual increase of 35 for the five years 1886-90, while in the second the increase is above it, the figures being respectively 219 and 123. The number of private patients *admitted* (excluding transfers) during the year was 573, or 51 more than during the preceding year and 96 more than the average during the five years 1886-90, and the number of pauper admissions was 2,353, or 140 more than during 1890 and 291 more than the average for the five previous years.

NUMBER OF LUNATICS AT 1ST JANUARY, 1892.

MODE OF DISTRIBUTION.	Male.	Female.	Total.	PRIVATE.			PAUPER.		
				M.	F.	T.	M.	F.	T.
In Royal and Dis'triet Asylums	3555	3792	7347	738	801	1539	2817	2991	5808
„ Private Asylums	50	113	163	50	113	163	...	...	...
„ Parochial Asylums, i.e., Lunatic Wards of Poor- houses with unrestricted Licences	711	813	1524	...	...	...	711	813	1524
„ Lunatic Wards of Poorhouses with restricted Licences	435	440	857	...	...	...	435	440	875
„ Private Dwellings	1015	1545	2560	42	83	125	973	1462	2435
„ Lunatic Department of General Prison	5766	6703	12469	830	997	1827	4936	5706	10642
„ Training Schools	42	15	57	...	...	...	...	...	...
„ Training Schools	174	99	273	81	64	145	93	35	128
TOTALS	5982	6817	12799	911	1061	1972	5029	5741	10770

The provision by which persons may voluntarily enter asylums for treatment is apparently being taken advantage of to an increasing extent, for the statistics show that the number, 77, admitted during 1891 is 13 over the average for the 10 previous years, and, in view of this fact, the Commissioners, while not expressing other than favourable views of the working and usefulness of the statute, have thought it advisable to remind asylum superintendents of the provision as to the mental condition of persons who may be legally so received and retained, and as to the extent of their responsibility in such cases.

The returns show that 226 private patients were discharged *recovered*, which is 27 above the number for the preceding year and 40 above the average for the five years 1885-89, and that the number of pauper patients so discharged was 959, which, though 16 below the number for the preceding year, is 30 above the average for the five years 1885-89. The proportion of recoveries per cent. of the admissions in each class of establishment is shown in the following table:—

CLASSES OF ESTABLISHMENTS.	Recoveries per cent. of Admissions.		
	1885 to 1889.	1890.	1891.
In Royal and District Asylums	39	38	35
„ Private Asylums	34	35	28
„ Parochial Asylums	42	46	42
„ Lunatic Wards of Poorhouses	6	11	13

The year under report has been marked by an increased *death-rate*, due apparently to the effects of the influenza epidemic, which was extensively prevalent throughout the country. The number of deaths of private patients is 152, or 12 more than during 1890 and 51 more than the average for 1885-89, while in the case of pauper patients the number of deaths was 778, or 138 more than in 1890 and 185 over the average of the years 1885-89. The death-rate for private and pauper patients per cent. of the average number resident, and the corresponding rate for the different classes of establishments, are shown in the two following tables:—

CLASSES OF PATIENTS.	Death-rate in all Classes of Establishments per cent. of the Number Resident.		
	1885-89.	1890.	1891.
Private Patients	6·6	8·4	9·0
Pauper Patients	8·1	8·1	9·6

CLASSES OF ESTABLISHMENTS.	Proportion of Deaths per cent. on Number Resident.		
	1885-89.	1890.	1891.
Royal and District Asylums	7·8	8·5	9·5
Private Asylums	8·0	7·8	5·1
Parochial Asylums	8·9	8·9	12·7
Lunatic Wards of Poorhouses	5·5	4·0	4·4

Of 117 reported *accidents*, 11 ended fatally. In five the death was suicidal; one, that of a voluntary boarder, due to phosphorus poisoning by sucking the ends of matches, one by strangulation, one by belladonna poisoning, one by hanging, and one by leaping from a window. Of the six non-suicidal fatalities, one was due to fracture by a fall, one to accumulation of hair in the stomach, two to asphyxia in an epileptic fit, one to rupture of the bladder during an attempt to escape, and one to a fall on a stone floor. In addition to these, injuries were sustained in three cases shortly before death, the injury being self-inflicted in one case, but in none did death appear to have been due to the injury, though in the case of one patient death may have been hastened by it. Fractures or dislocations were involved in 44 instances, received in 21 cases by falls, in seven by assaults by fellow-patients, and in 10 cases by struggling with patients or attendants; in three cases the injury was unintentionally self-inflicted, and in three the causes were not ascertained.

In the section devoted to the *present condition of establishments*, frequent reference, as in the Report of 1890, is again made to overcrowding, and the necessity for increased accommodation. Important additions to existing asylums are being made or contemplated to meet the requirements in

several districts, and in others new asylums are in course of erection. One of the most striking features of recent years in the arrangement of new asylum accommodation is the increasing prominence which is given to the provision of adequate hospital departments, and the Report for the year under consideration affords ample evidence of the very general desire on the part of the authorities to enhance by these means the efficiency of asylums as curative institutions as distinguished from homes for the insane. The Board of Commissioners, while recording with satisfaction this tendency to the separation of these two functions of an asylum, which they regard as sure to lead to a more effectual dealing with insanity as a disease, and to promote the contentment and happiness of those not susceptible of cure, do not regard with favour the idea of the complete separation of these two sections into distinct institutions under different superintendents. This, they point out, has been tried in various countries, but has never been found to work satisfactorily, and has never come up to the expectations of the promoters. Such an expression of opinion on this important point, lately so keenly discussed, coming as it does from such a source, is of the highest value, and ought to possess a considerable amount of weight.

Each year continues to be marked by an increase of the burden of pauper lunacy in Scotland, and the question of making adequate provision for its accommodation is one that is becoming more and more clamant. In the review of the Report of 1890 doubt was expressed as to how much further this could be met by the method of boarding-out in private dwellings, and the facts disclosed in the present Report rather tend to increase that doubt. Notwithstanding the increase in the total number of pauper lunatics, the year 1891 has been marked by a distinct diminution in the numbers who are provided for in private dwellings, and statistics for the past three years show that the proportion of those in private dwellings is diminishing, while the proportion accommodated in asylums is increasing, as is shown by the following figures, giving the proportion per cent. of all pauper lunatics in establishments and private dwellings:—

		In Private Dwellings.
1st January.	In Asylums.	
1890.	76·1	23·9
1891.	76·2	23·8
1892.	77·1	22·9

It is but right to state, however, that in the opinion of the Commissioners this decrease in the numbers in private dwellings is to be attributed mainly to a heightened death-rate, 53 more patients having died in 1891 than in the preceding year, but this, as regards the year 1891, applies, if not equally, at least to a considerable extent, to asylums as well as to private dwellings, and does not fully explain the facts indicated. The difference of the cost of maintenance in the two methods of provision which has been gradually diminishing for some time has been still further lessened during 1891, and this, as has been affirmed, may be to some extent responsible for the change in the distribution.

The method of boarding-out in private dwellings continues to be regarded by the Commissioners with unabated favour as a useful and advantageous way of providing for a considerable number of the insane, and as well adapted to promote their interests. It has its merits, all will acknowledge, and these are summed up by one of the Deputy-Commissioners as home-life, individualization, liberty, and contentment, and opportunities for remunerative employment under healthy conditions. On the other hand, like all other systems, it has defects, but there are some which may be regarded as more or less peculiar to this mode of provision. Whether the presence of insane individuals exercises a harmful influence on the sane among whom they are placed is a point which is not touched upon in the Report. One of the undesirable things most likely to occur is what is euphemistically called "sexual accidents." Two such occurred during the year, and though it cannot be denied that these do occasionally occur in institutions, the risk is immensely greater under a system where so much liberty is granted. In some cases, too, the removal of patients to such outlying and inaccessible districts as the Western Isles and the West Highlands must, one would think, preclude the possibility of visits from friends, and this is usually regarded as a hardship.

In the section dealing with the increase of pauper lunacy, the Commissioners indicate that it is much beyond what would naturally result from the increase of population, that it cannot be attributed to accumulation from longer residence in asylums; that it is only slightly due to a lowering of the death-rate; that there is no reason for believing it to be due to an increased tendency to insanity in the community; and that it is not due to any one cause, but to many causes operating with different degrees of force in different localities

and under different social conditions. Of the many causes specific mention is made of the following :—The provision of asylum accommodation in previously unprovided districts; the easier accessibility of asylums; the dying-out of feelings of dislike and suspicion towards these institutions; the greater readiness to send relatives to asylums, partly due to an increasing conviction of the difference between the acceptance of parochial relief in cases of insanity, and its acceptance under other conditions; the growing unwillingness to submit to all that is involved in keeping an insane relative at home; the greater willingness of parochial authorities to recognize claims to relief on the ground of insanity; the stimulus of the grant-in-aid, and the widening of medical and public opinion as to the degree of mental unsoundness which may be certified as lunacy.

As to the remedy for this increasing burden, the Commissioners indicate that it lies chiefly with the Parochial Boards, and is to be found in the following :—Careful scrutiny of applications, to ensure the granting of relief only when necessary in the interest of the lunatic or the public; the exercise of vigilance in seeing that lunatics are not detained in asylums when their mental condition renders such unnecessary; that lunatics, whose relatives are able to maintain them, are not kept on the poor roll, and that, in the case of those who require aid, the relatives who are liable contribute as far as they are able.

Considering the increasing gravity of this burden of pauper lunacy, which affects, not Scotland alone, but the whole country, these remarks, embodying, as they do, the experience of years in dealing with this subject, are worthy of the careful consideration of the authorities upon whom rests the responsibility of making provision for it, and there is, further, to the specialist interested chiefly in the scientific investigation of the causes of this increase, much in the Report that is instructive and will repay perusal.

Forty-First Report of the Inspectors of Lunatics in Ireland.
(Report for the Year 1891.)

The registered insane in Ireland were thus distributed at the beginning and at the close of the year reported on:—

	On 1st January, 1891.			On 1st January, 1892.		
	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.
In District Asylums	6,194	5,294	11,488	6,359	5,375	11,734
„ Central Asylum, Dundrum ...	150	29	179	124	19	143
„ Private Asylums	253	368	621	266	366	632
„ Workhouses	1,566	2,395	3,961	1,656	2,524	4,180
„ Gaols	2	—	2	—	—	—
	8,165	8,086	16,251	8,405	8,284	16,689

An increase of 438 during the year is thus shown. The Inspectors calculate that about 4,970 are resident in private dwellings or wander at large. These, of course, are not included in the table above given. The whole number of the insane in Ireland is reckoned at 21,000. This figure coincides with that at which the Census Commissioners arrived in the Census Returns for 1891. The following interesting extract is taken from the Census Commissioners' Report:—

“The total number of lunatics and idiots returned in 1851 was equal to a ratio of 1 in 657 of the population; in 1861, to 1 in 411; in 1871, to 1 in 328; in 1881, to 1 in 281; and on the present occasion, to 1 in 222, the ratio in the Province of Leinster being 1 in 202; in Munster, 1 in 197; in Ulster, 1 in 264; and in Connaught, 1 in 258. The counties having the highest ratios were—Meath, 1 in 126; Carlow and Kilkenny, each 1 in 149; Westmeath, 1 in 157; Waterford, 1 in 160; Clare, 1 in 168; and King's, 1 in 173. The following counties had the lowest ratios—Down, 1 in 333; Antrim, 1 in 310; Dublin, 1 in 284; Mayo, 1 in 282; Kerry, 1 in 270; Galway, 1 in 269; Donegal, 1 in 257; and Louth and County of the Town of Drogheda, 1 in 251.”

The Inspectors do not attempt any explanation of the re-

markable variation of the ratio in different districts. It is noticeable that those counties which are wealthiest and most civilized—Down, Antrim, and Dublin—have the smallest proportion of insane; but Mayo, a county of small holdings, where distress is chronic, approaches nearly to Dublin; while Meath, a comparatively opulent county, with its large grass farms and entirely without towns or centres of dissipation, presents the largest proportion of insanity. All this is rather contrary to the ideas prevalent just now as to the influence of fast living in the production of mental disease.

A Return is given by the Inspector showing that the proportion of lunatics *under care* per 100,000 of the population has increased from 249 in 1880 to 355 in 1891. "Such an increase is a subject which deserves the fullest and most careful consideration. It now appears from the return of the Census Commissioners that this increase can only to a small extent be explained by admissions to establishments from amongst the number of lunatics at large. The large emigration which has taken place during the past forty years (amounting in all to 3,415,400 persons), tending to remove the healthy and strong, both in mind and body, and leaving the weak and infirm as a burden on the public rates, must be considered as one of the principal factors in the explanation of this large increase. Hence it is safe to assume that the present number of the insane in Ireland properly belongs to a much larger population than that which now exists. However, making full allowance for this cause, which tends to show an apparent increase of insanity, we are still driven by the facts before us to conclude that the large increase of lunacy has been absolute as well as relative. . . . The rapid increase of insanity in the country, in the face of a diminishing population, ought, therefore, to engage the attention of all who take an interest in the social and material progress of Ireland, in order to ascertain how far such increase can be stayed by any means within the power of the State."

District Asylums.—Three thousand and ten patients were admitted into these establishments during the year. The average number of patients resident was 11,644. The recoveries bore the proportion of 40·4 per cent. to the admissions; the deaths, that of 7·6 per cent. to the daily average number under treatment. Twenty-four per cent. of the total number of deaths were due to consumption.

"The cause of death was ascertained by post-mortem

examination in 134 cases. Small though this number still remains, yet it shows an increase compared with the numbers in previous years."

The writers of this Report comment on the absurd mode of admission generally adopted in Irish Districts in accordance with the so-called "Dangerous Lunatics' Act," which has the double disadvantage that it converts the lunatic into a criminal, and that it prevents the asylum authorities from recovering cost of maintenance.

The Inspectors note the fact that during the year 1890 a Bill was passed assimilating the law as to pensions in Ireland to that in force in England. They point out that, under the law as it formerly existed in Ireland, the rate of pension was very low (one-fortieth for each year of service), but "was looked forward to as a matter of right." The higher pensions now legalized as permissive, are granted at the discretion of the Board of Governors, who may give or withhold them as they think proper.

"The low rate of wages paid to the subordinate staff of Irish asylums should, in our opinion, entitle them to look forward to a superannuation allowance after years of faithful service. It is undoubtedly of the first importance to attract well-qualified persons to the asylum service, to retain their services so long as they are efficient, and when incapacitated by ill-health or years to grant them a reasonable maintenance for the rest of their lives."

We cordially concur in what we take to be the opinion here suggested, that asylum pensions, whatever scale is adopted, ought to be "a matter of right," and we think this right ought equally to exist in all divisions of the kingdom.

A large portion of the Report before us deals with the question of over-crowding. Of the twenty-two district asylums in Ireland, eleven actually contained more than their proper number at the end of the year. The vacancies in many of the others were few. In Londonderry there was but one. The Richmond Asylum, Dublin, contained 341 patients above its accommodation, the Mullingar Asylum 167, and the number in excess of the entire accommodation in the various institutions provided amounted to 632. The importance of making sufficient and liberal provision for the insane is evidently very present in the minds of the Inspectors, and they have clearly encountered great difficulties in bringing it home to the consciences of the local authorities.

"Now that the number of pauper lunatics has increased so

enormously, and that their humane treatment necessitates a much larger expenditure, it is often difficult, notwithstanding a capitation grant in aid of 4s. a week from Imperial sources, to persuade Asylum Governors and those responsible for the imposition of county rates that in asylum management liberality is often real economy. They say, plausibly enough, that while they wish to treat their lunatics something better than ordinary paupers, they cannot see the necessity for anything more than the plainest buildings and simplest dietary for patients whose domestic conditions and surroundings were in many cases previous to their admission to asylums squalid and poor. The answer is simple: liberal feeding, picturesque sites, attractive surroundings and amusements are recommended because they are considered in many cases essential to the patient's cure."

The "Lancet" Commissioner's Report of some twenty years ago is pointedly quoted:—"When the task is to build and organize an asylum, even the great domineering passion of selfishness should induce everyone concerned, as trustee of public funds, or ratepayer, to see that it is in all respects adapted to divert, to cheer, to comfort, and to invigorate; because diverting, cheering, comforting the mind, and invigorating the body, are the methods by which a rapid cure is to be effected, and the dependent lunatic transformed from a burden to a bread winner. The perfection of these appliances at the outset often makes all the difference between a long and costly case, liable at any critical moment to become chronic and incurable, and a recovery speedily commenced and happily consummated."

Whether these words are to be taken as a suggestion to asylum governors or as an implied defence of recommendations which the Inspectors have been compelled to make, it is evident that they are intended to convey ideas that are new in Ireland.

The labours of the Inspectors appear happily to have been already productive of much good in this direction. In a great number of the asylums new works are being pressed on. In some, additional space for patients is being provided; in others, much-needed improvements in heating, in the structure of laundries, kitchens, store and sanitary buildings are being carried out.

At Belfast "the best means of providing separate accommodation for the insane belonging to County Antrim has been for a considerable time under consideration. It was at

last decided to divide the district, leaving the asylum at Belfast for the use of the insane belonging to that city, and to erect a new asylum for the insane of the County Antrim. For this latter purpose an estate close to the town of Antrim was purchased."

At the Richmond Asylum, Dublin, "the Board of Governors have decided to obtain an estate in the neighbourhood of the metropolis, and there erect a second asylum for the district. No doubt before many years are passed it will be found convenient for the Counties of Dublin, Louth, and Wicklow to separate from the City of Dublin, as the patients belonging to the metropolis are increasing with such rapidity as to render it likely that a separate institution will be found essential for their treatment; but in the meantime the scheme adopted by the Governors has the advantage of presenting the fewest difficulties in its accomplishment and of affording the greatest facilities for speedily supplying the accommodation so much required."

Suicides, etc.—It is creditable to the general management of the asylum that but three suicides during the year are to be recorded. The number of accidents amounted to forty-six, of which three proved fatal. In neither class was there any case of special interest. Five cases of cruelty to patients on the part of attendants are recorded. In one of these the attendant was prosecuted.

Dundrum Criminal Asylum.—To the vacancy occasioned by the death of Dr. Isaac Ashe, a talented and accomplished member of our Association, "the Lord Lieutenant was pleased to appoint Dr. Revington, a young Irishman, and a distinguished Graduate of the University of Dublin, who had been for some years Senior Assistant Medical Officer at the Lancashire County Asylum, Prestwich. Since his appointment we are happy to be able to report that the management of the institution has distinctly improved, discipline has been upheld, complaints of irregularities and misconduct on the part of attendants and inmates have decreased, and escapes, which had become a scandal, and had repeatedly necessitated the intervention of the police to aid in guarding the outside of the building, have ceased."

Private Asylums.—The reports made at the various private asylums are kindly and generally favourable. Nevertheless, it has been found necessary in one case to obtain a revocation of license, and, as the offender was contumacious, even to institute legal proceedings. The Inspectors again draw

attention strongly to the lamentable lack of any proper provision for patients of the poorer middle classes in Ireland. In this connection they say :—"The best way of providing accommodation for the class who can only afford to pay small stipends is manifestly in public institutions and not in houses maintained for profit, and we trust that in any fresh lunacy legislation provision will be made to enable the local authorities to furnish separate accommodation for this class of private patients in connection with their asylums. Such provision has already been made in England by the 241st section of the new Lunacy Act of 1890."

The Insane in Workhouses.—In strong but temperate language the Inspector described the unsatisfactory condition of the insane in the Irish workhouses. The utter unsuitability of the provisions existing may be gathered from this passage :—"It has been our duty to call the attention of Guardians to the absence of cleanliness, general and personal, in the lunacy department of many workhouses. In the majority of these institutions there are neither baths nor suitable lavatory arrangements for the use of the insane, and in the absence of these it is impossible to expect that due cleanliness can be observed and that the patients can be kept free from vermin and dirt."

In concluding the text of their Report, the Inspectors again appeal for a grant either out of the Irish Church surplus or some other Imperial fund for the endowment of suitable institutions for the care and education of idiots and imbeciles.

Appendix F. consists of reports of visitations made by the Inspectors at the various institutions which contain lunatics. We note the absence of reports on six district asylums. The reports are very careful and courageous, and in many of the particulars dwelt on they exemplify, like those of the preceding year, the heavy task that is laid upon the Inspectors in educating public opinion in Ireland on the requirements needed in modern times for the care of the insane.

We are glad to say the tabular and statistical statements in this Report are, on the whole, accurately done.

From the perusal of this and their former Reports, as well as from their countrymen, we believe that the present Inspectors of Lunatics in Ireland are justifying the hopes we ventured to express when they were appointed, and are carrying out their extremely difficult work in an excellent manner.

Without undue precipitancy and without a delay that

might seem compliant ("ohne Hasten ohne Rasten") they press forward the work of reform so much and so long needed. In a remarkably short space of time their influence has been generally felt, and felt to much purpose, and this is the most conclusive proof of their earnestness and usefulness. We wish them God speed in their labours, and we are sure that, however unpleasant their task may often be now, they will eventually enjoy the satisfaction of seeing an ample harvest for their toil.

Philosophische Studien, January. 1892.

The first number of the "Philosophische Studien" of 1892 brings an interesting paper from the pen of the first living representative of psycho-physics, Professor Wundt, on "Hypnotism and Suggestion." The article in question is the more remarkable, because in it a decisively forward step is taken in the explanation, and, above all, in the proper valuation of hypnotism. Although much has been done by Bernheim, Forel, and Moll to divest hypnotism of the mysteries in which it was enwrapped—voluntarily or involuntarily—by those who knew and practised it, Wundt goes still further than any of the authors mentioned, and, throwing aside anything not conformable with the well-known laws of nature, *i.e.*, all occult relations which make hypnotism so interesting, especially in the eyes of lay-people, puts hypnotism on a thoroughly scientific basis. We are well aware that there are still uninformed men, even in the medical profession, who doubt the phenomena of hypnotism; for such Wundt does not write. The phenomena in question are indisputable to him, as they are to everybody who has watched them with an unbiassed mind, and he therefore does not go into the description of the symptoms, but only mentions those which are of importance for the physiological and psychological explanation of hypnotism, as automatism, somnambulism, post-hypnotic suggestion, positive and negative hallucinations, the purely physiological effects as the production of blisters, etc. After having briefly touched upon these, Wundt treats in his second chapter of the physiology and psychology of hypnotism and suggestion, introducing at first and criticizing the various attempts of explanation—physiological and psychological—advanced by eminent observers. Heidenhain

thought the hypnotic condition to be due to an inhibition of the ganglionic cells of the cerebral cortex produced as a kind of reflex-inhibition by weak but constant irritation. A similar view was propounded by Charcot, who, in addition to the inhibition, assumes a stimulating effect on the motor and sensory centres (automatic movements and hallucinations). These theories, however, entirely neglect the influence of suggestion as a means of hypnotizing. In fact, Heidenhain himself was not satisfied with regard to his own hypothesis, since he found that the functional inhibition, produced in animals by ablation of the cortex, differed greatly from that observed in hypnotized individuals. Wundt also dismisses briefly Forel's* theory of the dissociation of customary associations and their being singly called into play by means of suggestion, and then goes on to criticize fully the physiological explanation advanced by Lehmann,† who founds his theory mainly on the vaso-motor effect of hypnosis and suggestion, generalizing this truly physiological phenomenon, and making it responsible for most phenomena of normal mental life, and especially for attention, this idea being based on the facts confirmed by Mosso, that during sleep the blood-supply to the brain is diminished. Therefore Lehmann concludes that if attention is very intense the blood-supply to the one special part which has been stimulated becomes more abundant. In the hypnotic condition attention is directed to one side only, this condition being produced by the monotonous stimulation or suggestion; hence, the very limited number of associations and the amnesia on returning to the normal state. Wundt's objection to this theory is that Lehmann, when explaining psychical conditions—normal or abnormal—does not apply his physiological vaso-motor theory, but explains all processes by association of ideas and limitation of attention, *i.e.*, purely psychical conditions. With regard to the methods of psychical explanation, there are two kinds, the one which looks upon hypnotism as quite a new phenomenon of an enormous psychological importance, calculated to throw fresh light on the human mind, and the other which builds up the explanation of hypnotism on psychical facts known and understood. The former method of making things which are not quite clear the basis of psychology, Wundt rejects at once as unscientific, and considers only the

* Forel, "Der Hypnotismus," Stuttgart, 1889.

† Lehmann, "Die Hypnose," etc., Leipzig, 1890.

latter kind of phenomena. There are two principal hypotheses, that of sympathy and that of double consciousness, the former represented by Dr. Hans Schmidkunz,* the latter by H. Taine,† Pierre Janet,‡ Max Dessoir,§ and to a certain extent by Moll.||

Schmidkunz fares very badly at the hands of Wundt, who considers his book as very instructive how *not* to study psychology, whilst he finds the ideas of the other authors mentioned anticipated in the ecstatic and somnambulistic literature of former days, with one difference, however, viz., that formerly the abnormal consciousness was considered to be the highest, and to be gifted with extraordinary power, whilst it is now, generally speaking, regarded as a lower stratum of the human personality. On the whole, Wundt considers the hypothesis of double consciousness as an example of those imperfect explanations in which a new name only is introduced for the phenomenon to be explained, without making the matter any clearer to the critical inquirer. Self-observation during the hypnotic condition would be of great importance, but is, for obvious reasons, extremely difficult, if not quite impossible. Forel mentions in his book (p. 81) an interesting case of self-observation, and Wundt also relates at some length a similar experience of his own. When in 1855-56 a house-physician under Professor Hasse, at Heidelberg, he had for a time very heavy night-work to do, so that in the end he was over-fatigued, and when called he performed his duties in a mechanical manner, whilst only half-awake. One night he was called to a patient who was suffering from typhoid fever, and was very delirious. He went into the ward in a dream-like state, although talking quite reasonably to the nurse and several other patients. Suddenly he noticed in an open cupboard a bottle of tincture of iodine, and at the same moment the idea became predominant in his brain that iodine was the medicine required in this case; he ordered the nurse to fetch the bottle, and gave the patient one teaspoonful, a few drops of which were taken, but at once rejected, a circumstance which greatly surprised him at that time. It was customary in such cases to give a teaspoonful of *laudanum liquidum Sydenhami* (G.P.); the colour of the tincture of iodine

* Schmidkunz, "Psychologie der Suggestion," Stuttgart, 1892.

† Taine, "De l'intelligence," Vol. i. (préface).

‡ Pierre Janet, "Révue philosophique," Vol. xxii., p. 577.

§ Max Dessoir, "Das Doppel-Ich," Berlin, 1889.

|| Moll, "Der Hypnotismus," 2nd Ed., Berlin, 1890.

reminded him of laudanum, and in his condition at that time, which he considers to have been one of spontaneous somnambulism, he associated with the iodine the properties of laudanum as an anodyne, and was so perfectly convinced of the correctness of his idea that even the astonishment of the nurse could not make him change his mind. After having returned to his room he became perfectly awake, and then only became aware of the mistake he had made. He remarks that in the state mentioned objects seemed to be further away than usual, and words seemed to come from a greater distance, a condition which resembles that at the commencement of a fainting fit or a narcosis. Altogether there was a certain numbness of the sensorium. From this interesting experience Wundt concludes that his condition was one of "auto-suggestion;" the word "suggestion," however, not having yet found a psychological explanation. He defines it as "an association with complete limitation of consciousness to the ideas produced by this association;" hence, the diminished sensibility in the hypnotic condition, in consequence of which the phenomenon mentioned above with regard to vision and hearing is observed. This explains, to a certain extent, why a slight narcosis favours the hypnotic state, viz., by the insensibility produced towards outside stimuli. In order to explain certain processes of the normal condition, but especially the events of dreams and hypnosis, Wundt formulates a law "of functional compensation:" If a greater part of the central nerve-organ is in a condition of functional inactivity in consequence of inhibitory influences, the excitability of the part which remains in functional activity is increased towards any stimulus directed against it. It stands to reason that this increase is the greater, the less the energy previously expended from the amount stored up in a condition of latency in the central nervous organ in general. As the physiological basis of this law we may assume a twofold action—one neuro-dynamic, and the other vaso-motor. With regard to the former, it seems probable, considering the manifold connections which the nervous elements have with each other, that the excitability of a central nervous element depends not only on the condition in which it happens to be itself at the time of stimulation, but also on the state of the nervous elements with which it is connected, in such a manner that by stimulation of the neighbouring elements the excitability of the nervous element in question

is decreased, while if the neighbouring elements are at rest, the one element acts the more energetically. This we may consider proved by the fact that cerebral activity is the more energetic the more one-sided it is, and that the excitability of all other cerebral elements is diminished by energetic and one-sided activity of one area. The ganglionic cells, in addition to their nutritive function, must be considered places in which a constant accumulation of latent energy takes place, which under certain conditions is converted into actual energy and conducted along the nerve-fibre. The accumulation of energy takes place constantly, its conversion into actual energy, however, only at times under the influence of stimuli; during sleep, therefore, in consequence of the absence of stimuli, there is a general storing up of energy in all central nervous elements. We know from the degeneration following section of nerves, extirpation of ganglia, and section of the cord, that the nerve-fibres are not only paths of conduction, but also serve as channels for the nutrition of the nervous substance, by means of which the substances, which are the chemical equivalents of the latent energy, pervade the whole central nervous system, constantly keeping up an equilibrium of energy throughout in such a manner that energy used up at one point is at once supplied again from neighbouring points. If, therefore, a cerebral nervous element is stimulated during sleep, the excitement produced will be very great, partly on account of the great energy present in the element itself, and partly in consequence of the rapid supply from the other resting elements. The effect produced by this neuro-dynamic action is increased by vaso-motor compensation. According to the principle that the greater the function of a part the greater its blood supply, and *vice versâ*, the blood supply to the various parts of the brain is regulated in such a manner that one part, which is active, will receive more blood, while others necessarily will receive less; and, on the other hand, the less active some parts are the more their vessels will contract, thus allowing and even forcing more blood to flow into the part which is in functional activity. The neuro-dynamic and vaso-motor compensations go hand in hand—it is impossible to assume one without the other. Hypnosis is not, like sleep, the consequence of fatigue of the nervous system, but is produced by the neuro-dynamic and vaso-motor changes in the brain; the increase of function, therefore, is much more intense

than in sleep, even passing over to the motor-centres, thus causing the hypnotic condition to resemble the waking state. Hypnosis has its origin in suggestion, supported by other factors, which produce one-sided direction of the mind. Consequently, while in dreams the ideas and illusions fly from one thing to another, the hypnotized mind can only be influenced by stimuli connected with the suggestion, but by these it is very strongly affected. The conditions mentioned plain without difficulty the general phenomena of hypnotism.

Here we have reached the climax of a most interesting paper, and therefore we have given it more fully than perhaps a review requires. In the rest of his article Wundt treats of the value of suggestion, and comes to the conclusion that if it is of minor use for the advancement of psychology, judiciously used it may be of great value in therapeutics. He demands, however, that by law medical men only should be allowed to practise hypnotism on account of the dangers and disadvantages connected with its abuse.

We cannot conclude this review without expressing our pleasure that Wundt's paper is the protest of science against the occultism at present in fashion amongst us, which stands in the same relation to real psychology that astrology does to true astronomy.

French Hypnotic Literature.

Grand et Petit Hypnotisme. Par J. BABINSKI. Paris: E. Lecrosnier et Babé. 1889.

This monograph deals with the relations of hypnotism to hysteria, and, faithful to the traditions of the Salpêtrière school, M. Babinski, a-pupil of Charcot, endeavours to prove that the views of Bernheim and the Nancy school are, if not erroneous, much exaggerated.

The objective signs of the hypnotic state—neuro-muscular hyperexcitability, cataleptic plasticity, musculo-cutaneous hyperexcitability—are discussed, and the characteristics distinguishing them from simulated phenomena emphasized. "Grand hypnotisme" includes those cases only which exhibit Charcot's three classical stages of lethargy, catalepsy, and somnambulism; "petit hypnotisme" includes those in which one or more of the stages is or are deficient, or in

which they are ill-defined, and in which there is often an absence of physical or objective signs.

Patients with "grand hypnotisme" are always hysterical, and most of the cases of "petit hypnotisme" belong also to the hysterical class, although Babinski acknowledges that one may find in many no stigmata of hysteria. The Nancy school is accused of putting down all hypnotic phenomena to the effect of suggestion; the tendency with the Salpêtrière school is to call it all hysteria.

Charcot's views (and his adherents'), are briefly:—

1. The objective signs of hypnotism are of fundamental importance, and in their absence simulation cannot be properly eliminated.

2. "Grand hypnotisme" is characterized by its three distinct stages.

3. The objective signs of hypnotism may appear independently of suggestion.

4. Hypnotism, when well developed, is a pathological condition.

Bernheim, on the other hand, says that "grand hypnotisme" is an artificial creation; no importance is to be attached to objective signs; and hypnotism is a physiological condition. What is white in Paris is black at Nancy, and *vice versâ*.

But Babinski pertinently asks: "Since the true objective signs cannot be simulated, whether due to suggestion or not, are they not trustworthy evidence of the hypnotic condition?"

What guarantee, on the other hand, have we that Liébault's and Bernheim's slight cases are genuine? Have we any proof of the reality of purely psychical phenomena?

Bernheim cannot induce "grand hypnotisme" in his subjects, and, therefore, denies its existence. Charcot and his followers reply that it is because the subjects are not selected, they are not "grands hystériques." Charcot began his inquiries without any preconceived ideas; the three states were simply observed; the patients were, so to speak, virgin subjects as regards hypnotism. Let Bernheim, therefore, select a subject, not hyperexcitable to begin with, and prove that by suggestion he can induce "grand hypnotisme."

Tamburini and Seppili, Rummo, Vizzioli, Oct. Maira and David Benavente, Ladame, etc., have confirmed the Salpêtrière observations.

In conclusion, Babinski dwells on the points of affinity between hysteria and hypnotism (contractions, varieties in attacks, alternation in phenomena, etc.), and looks upon hypnotism as belonging to the large family of neuropathies.

Hypnotisme et hystérie ; du rôle de l'hypnotisme en thérapeutique.
Par J. BABINSKI. Paris : G. Masson. 1891.

This is a natural sequel to the preceding monograph, and the author dilates at greater length upon the similarity between hypnotism and hysteria :

α. As regards physical manifestations, motor paralysis, contracture, anæsthesia ;

β. Psychological phenomena, exaltation of suggestibility, etc. ;

γ. The therapeutic benefits of hypnotism are almost solely observed in hysterical cases ;

δ. Hysterical and hypnotic phenomena are often interchangeable or alternate ;

ε. Hypnotism may produce an hysterical attack.

Hence Babinski concludes : "We might almost say that hypnotism is a manifestation of hysteria."

Bernheim's views of hypnotism and hysteria are certainly widely different from Charcot's, and no doubt this explains much of the discrepancy in their results. Bernheim doubts the existence of hysteria in men, which is very common according to the Salpêtrière school. Bernheim defines suggestibility as "a condition in which the subject is influenced by an idea accepted by the brain, and realizes it." "But then," says Babinski, "we are all suggestible ; and if hypnotism is merely a degree of suggestibility, where are we to draw the line ?"

As regards the therapeutical effect of hypnotism in nervous cases (nearly always hysterical), Babinski arranges these in five groups :

1. Those in which there is no improvement ;
2. Those in which the improvement is slight ;
3. The improvement is rapid, but not permanent ;
4. The improvement is slow, but permanent ;
5. A few cases where the cure is rapid and complete.

In cases of organic disease associated with hysteria, the hysterical element may be cured by hypnotism, and occasionally certain symptoms of organic disease may be relieved by it, e.g., the lightning pains of locomotor ataxy.

If we examine 208 cases mentioned by Bernheim ("De la

Suggestion," etc.) we find only 32 entered under the head of hysteria; but Babinski points out, and apparently with very good reason, that many cases included in the groups traumatic neuroses, neuropathic affections, neuroses, dynamic paralysis, neurasthenia, organic affections of the nervous system, are purely and simply hysterical. And he adds: "Can we accept the statements that lateral sclerosis and cerebellar tumour are cured by hypnotism, or by the application of a magnet, without the evidence of a post-mortem examination?"

With regard to the treatment of mental diseases by hypnotism, many competent observers—Magnan, Forel of Zürich, Briand—are not sanguine about it; Percy Smith and others in England, we might add, are of the same opinion.

Dr. Babinski's monographs are well worthy of perusal by all who are interested in the question of hypnotism. Further researches are needed to place the subject on a surer basis, and, considering the wide divergence in the views of such observers as Charcot and Bernheim, the only attitude of the unbiassed scientific student must be one of expectancy and research.

Les suggestions hypnotiques au point de vue médico-légal.
Par GILBERT BALLET. Paris: G. Masson. 1891.

The main purpose of this pamphlet is to show that the dangers of hypnotism, the fear of crimes arising through suggestion—much spoken of in novels and in the press—have been enormously exaggerated. While admitting that attempts have been made upon the person of subjects in the state of lethargy, or catalepsy, and somnambulism, the author fails to see in the annals of crime any genuine instance of a person committing a crime suggested during the hypnotic state by another person. The cases of La Roncière, Benoît, Jacquemin, etc., analyzed by Liégeois (*De la Suggestion et du Somnambulisme*, etc.), he points out are not examples of suggestion.

"But as regards the future," Ballet remarks, "are suggested crimes possible? And, if so, can they be done with ease or with impunity?" From the experience of the laboratory we might reply in the affirmative; but the conditions here, we must remember, are different; moreover, the patients are never purely passive automata; most of them retain some individuality. Only one in twenty of hypnotizable subjects, Liébault observes, will faithfully carry out

post-hypnotic suggestions; and, to quote Bernheim, "education constitutes in itself a primitive suggestion capable of neutralizing ulterior ones." Certain subjects, when criminal suggestions are made to them, refuse to, or do not, wake; some fall into the lethargic state; others get a hysterical attack. The criminal must, therefore, choose a suitable subject for his purpose and train him. This in itself may lead to exposure; and, in addition, the passive criminal (the suggested person) would be more easily detected than an ordinary being.

With regard to the signing of cheques, of wills, the giving of false testimony by persons acting under hypnotic suggestion, here, again, Ballet thinks the dangers are more imaginary than real.

He questions the advisability of hypnotizing a criminal suspected of having acted under suggestion, to ascertain the truth. Can we be sure of the results? Many subjects are known to mislead and even deliberately lie under the circumstances.

When Bernheim says "*la suggestion est dans tout*," he alters, as Ballet remarks, the standpoint of discussion. If Troppmann, Gabrielle Fenayrou, Gabrielle Bompard, etc., are all irresponsible, where are we to draw the line?

One can imagine a clever criminal, familiar with the subject of hypnotism, making use of another person to accomplish a criminal act by suggestion, but the chances of eluding detection are only slight, and common sense will often come to the rescue in these cases in tracing the true culprit.

As a corrective to the credulity of many who see in hypnotic suggestion a new scourge to society, and as a clear and brief exposure of the medico-legal aspect of the question, Dr. Ballet's pamphlet is well worth perusing.

Uric Acid as a Factor in the Causation of Disease. By ALEXANDER HAIG, M.A., M.D.Oxon., F.R.C.P. London: Churchill. 1892. Pp. 272.

Nine years ago Dr. Haig set himself to investigate the causation and treatment of a headache from which he suffered periodically. But his investigations led him farther than he expected; the horizon gradually expanded until now it seems to him that if his conclusions are correct he has revolutionized a large part of the field of medicine, including epilepsy, mental depression, gout, rheumatism, diabetes, Bright's disease, high

arterial tension, etc. He received his first stimulus from suggestions in the works of Sir A. Garrod and Dr. Liveing, and he has carried on a number of investigations which have been published in various medical journals, and have attracted considerable attention and criticism. This volume the author regards merely as a preliminary statement of his results.

The main points of Dr. Haig's teaching may be very easily stated. Excess of uric acid in the system is due, not to increased formation, but to retention. It may be present in excess either when in course of excretion in the blood, or in the joints, liver, etc. When uric acid is in course of excretion there is a tendency in susceptible persons to headache, lassitude, and depression, with slow pulse and high arterial tension; when, on the other hand, the uric acid is driven into the joints these symptoms at once disappear, but give place to tingling in the joints, and in susceptible persons to symptoms of gout, rheumatism, etc. Now Dr. Haig finds that either of these two sets of symptoms can be produced at will. By giving acids, morphia, etc., he can at once diminish the excretion of uric acid, and clear up the headache and mental depression, producing instead shooting and pricking pains in the joints; and by giving alkalies, salicylic acid and its compounds, quinine, etc., he can increase the excretion of uric acid, and produce the opposite set of symptoms. Practically, in order to cure his headache, he finds it necessary to follow up a small dose of morphia ($\frac{1}{6}$ gr.) by a dose of salicylate; for if the uric acid is merely driven into the joints it will come out again next day, and produce the same symptoms again. But he has found prevention more important than treatment, and he achieves prevention by returning to the doctrine of former days, and fighting uric acid by diminishing the income of nitrogen. Since he has excluded butcher's meat from his dietary he has lowered the uric acid consumption and cured his headaches, and he finds that this treatment—the prevention of urates so far as possible and their rapid expulsion from the body—is the key to the treatment of gout and many other disorders. Alcohol he finds in itself harmless, and so far as it is not so its action is merely due to the acidity of most wines and beer, which drives the uric acid into the joints; and even when so acting it is, so far as mental depression is concerned, beneficial. "If my premises are good," Dr. Haig remarks, "and my deductions sound, and if uric acid really influences the circulation to the extent which I have been led to believe that it does, it follows that uric acid really dominates the function,

nutrition, and structure of the human body to an extent which has never yet been dreamed of in our philosophy, and in place of affecting the structure of a few comparatively insignificant fibrous tissues in which it is found after death, it may really direct the development, life-history, and final decay and dissolution of every tissue, from the most important nerve centres and the most active glands to the matrix of the nails and the structure of the skin and hair."

Dr. Haig works out, or suggests, the application of these views in various fields. He points out, for instance, that the phenomena of epilepsy frequently present a close resemblance to those of the uric acid headache. There is the same mental well-being, with scanty excretion of uric acid before the fit, the same excessive excretion of uric acid and mental depression accompanying it, followed by the same subnormal surface temperature, and often slow faltering pulse. Both come on in early life, and recur at more or less regular intervals; both are met with in members of the same family, or even alternate in the same patient; while the action of drugs is parallel in the two disorders, and the treatment—especially by diet—becomes more promising.

Dr. Haig is not able to say in what proportion of cases epilepsy may be due to this cause, nor to speak very positively as to the results of the treatment he suggests. These questions could, however, as he remarks, be speedily settled in an asylum where many epileptics are under observation, and it is to be hoped that someone will investigate the matter.

Dr. Haig also finds that uric acid counts for much in hysteria. Its action here and elsewhere is largely due to its effects on the arteries and capillaries, more especially in the brain. Uric acid in the vascular system produces high arterial tension; clear the blood of uric acid by the use of any of the drugs which produce retention of it, and as the pulse tension is reduced its rate quickened, and the urine increased, the mental condition alters as if by magic.

Dr. Haig makes the interesting suggestion—which he tells us he is endeavouring to work out—that the excess of suicides and of criminality during the summer months is caused by uric acid. During the cold months there is a tendency to the retention of uric acid; with the return of warm weather there is a fall of acidity, and the uric acid held back and stored during the winter begins to be dissolved in the blood. "I believe that the above-mentioned physiological fluctuation in the excretion of uric acid, and the concomitant uric-acidæmia, completely

account for the observed fluctuations in the incidence of mental depression, suicide, and murder." He also believes that alcoholism, morphinism, and cocainism have their starting point in the temporary well-being these drugs produce through driving the uric acid out of the circulation into the liver, spleen, joints, etc., from which it emerges in the "alkaline tide" of the following morning.

Dr. Haig's book is altogether very interesting, and well worth the consideration of the alienist. It is written in a conversational manner, without attention to style. His unfaltering earnestness is aptly shown by his solemn treatment of a venerable joke: "'Is life worth living?' That depends on uric acid. The orthodox answer is 'That depends on the liver,' but as the liver is only one of the sources of uric acid I cannot regard the answer as sufficient." Some criticism has been directed against Dr. Haig's use of Haycraft's method of estimation by other workers who have arrived at different results, and his conclusions require confirmation. We cannot yet decide if he is like Saul, the son of Kish, who went forth to seek his father's asses and found a kingdom.

Die Psychopathischen Minderwertigkeiten. Von Dr. J. L. A. Koch, Zweite Abtheilung. Ravensburg: Otto Maier. 1892.

Dr. Koch has now concluded his study of the borderlands of insanity, the first part of which we noticed in the Journal for last April. This second volume deals chiefly with acquired psychopathic conditions. He divides and subdivides his subject in what is, perhaps, a somewhat arbitrary way, but deals in an able and suggestive manner with the mental and constitutional characteristics of various morbid conditions, including, among others, morphinism and cocainism, the chronic abuse of coffee (of which, however, he is rather sceptical), and the neurotic conditions accompanying puberty, pregnancy, masturbation, etc. In justification of the title of his work, Dr. Koch criticizes the wide extension sometimes given to the conception of neurasthenia, as a "comfortable pillow of self-satisfaction" which hinders progress. He considers that Beard is largely responsible for this, but, at the same time, does full justice to the American author as a genuine scientific worker, who

initiated the study of many anomalous mental conditions. The book ends with a discussion of prophylaxis and treatment, and with a few well-selected cases.

Audition Colorée. By Dr. JULES MILLET. Paris: Doin. 1892. Pp. 81.

This interesting pamphlet is the latest contribution to a subject to which little attention has been given in this country, although it was in England that the expression, "colour hearing" or "coloured hearing," now generally accepted as most convenient, was first used. Dr. Millet, a young medical man of Montpellier, is fairly well acquainted with the copious literature of his subject, to which he gives frequent references, and is also interested in the bearing which the works of various recent poets and novelists (Baudelaire, Huysmans, Gautier, etc.) have on the matter, although, with the exception of a famous sonnet by Rimbaud, he attaches little value to these literary contributions to our knowledge of coloured hearing. He has himself since childhood associated colours with the various vowels, and been conscious of other similar associations.

Colour hearing is not common in Dr. Millet's experience; much rarer than Bleuler and Lehmann found it, though this may be due to the former's rejection of cases which were clearly not spontaneous, but acquired by suggestion. He confirms the experience of other observers that the fundamental colour of acute sounds (such as the English *e*) is red or yellow, while the deeper sounds are associated with sombre colours. Unfortunately, colour-hearers are not sufficiently unanimous to enable us to found a science on their abnormal sensations.

Dr. Millet presents, in a tabular form, the experiences of 92 cases, drawn from various sources, of persons to whom vowel sounds are coloured. It appears that yellow is the colour most frequently seen (in 68 cases), while orange and violet are the colours least commonly seen (by eight and five persons respectively). The French *a* is most usually black, the English *e* is most usually heard white (*i.e.*, by more than 50 *per cent.* of those who hear it coloured). *O* is usually red, but nearly an equal number of persons see *a* red. The English sound *a* is usually yellow, while half the persons who see green associate it with the French *u*.

Dr. Millet has not much light to throw on the theory of coloured hearing, but he invokes Luciani's doctrine of the partial confusion of cerebral centres, and also considers that Charcot and Binet's four types (indifferent, visual, auditive, and motor) of mental process aid in making the phenomena comprehensible, the subjects of coloured vision being all, he believes, of the visual class. He considers that coloured audition, far from being in any way associated with neuro-pathic symptoms, marks a new stage of progress in the perfectibility of the senses, and he urges us to penetrate the mysteries of the ultra-violet rays. How those of us who are not colour-hearers are to penetrate these mysteries the author fails to explain.*

Le Type Criminel d'Après les Savants et les Artistes. Par le Dr. EDOUARD LEFORT. Paris: G. Masson. 1892.

This is one of the "Documents de Criminologie et de Médecine Legale" which we owe to the enthusiasm and industry of the Lyons school. Charcot and some of his pupils had already exploited the field of art to illustrate the demoniacal and ecstatic forms of hysteria, and the happy idea occurred to Dr. Lefort that the same method might be used to illustrate criminal anthropology. He has no difficulty in showing what many of us have already realized, that artists have always been familiar with those signs of low and degenerate organization which recent investigation has shown to be common in criminals. Dr. Lefort takes the Italian, Flemish, Spanish, and French schools in turn, and the book is fully and excellently illustrated.

The British Guiana Medical Annual and Hospital Reports. Edited by J. S. WALLBRIDGE, M.R.C.S., and E. D. ROWLAND, M.B. Edin. Demerara, 1892.

This little volume contains thirteen papers by medical officers in the Guiana Government service, besides some clinical notes and the reports of interesting discussions on the papers read to the Guiana Branch of the British Association. The contributors prove that they have made good use

* It may be mentioned that an able article on "Pseudo-Chromesthesia," by Dr. Krohn, has just appeared in the "American Journal of Psychology," (Oct., 1892.) A full bibliography (containing 85 entries) is given at the end.

of the field for original observation in the colony. Three papers are of especial interest to the readers of this Journal—"Cases of General Paralysis of the Insane," and "Pathological Appearances seen in the Insane Dead in the Berbice Lunatic Asylum," both by T. Ireland, and "Notes on Racial Physique," by P. B. T. Stephenson, M.B., C.M.

Dr. T. Ireland observes that "general paralysis occasionally occurs in the negro, but seldom or never in an Indian coolie. As one would expect in a race whose mental development is as yet imperfect, and in which the finer mental emotions are to a considerable extent latent, cases are occasionally seen in which mental symptoms are almost entirely absent, or so slight as to escape the notice of the patient's relatives, possibly only a slow gradual change in the character and disposition taking place, without the appearance of the *outré* ideas or extravagant behaviour so characteristic of the disease as seen in the white race. Others, however, appear in which all the symptoms, mental and physical, are perfectly typical. The absence of exciting causes, such as anxiety of mind, overwork, and over-excitement, in a country where it is so easy to earn a livelihood, and where the struggle for existence is comparatively slight, leads us to regard sexual and alcoholic excess with syphilis as the most probable cause of general paralysis."

Six cases of general paralysis in negroes are described at length. The first was a negress aged thirty.

Dr. Ireland remarks that in 1891 the health rate of the public lunatic asylum fell from 104, about which it had stood in the two preceding years, to 70, giving a percentage of a fraction over 10 in the average number of patients daily resident. As usual, Bright's disease or cirrhosis of the liver and kidneys was the most prolific cause of death, being fatal in 25 cases. In a considerable number of those examined after death anchylostomata were found, although in none of them could the cause of death be assigned to these parasites.

Dr. Ferguson gives us a careful study of the anchylostoma duodenale and the effects which it produces in the human body. Anchylostomiasis is the cause of a great mortality in the villages and plantations of Assam. It was no doubt brought by the coolies to Guiana, where it infests the workers in the sugar factories. It produces death by anæmia and effusion into the serous cavities. Towards the end of the disease mental changes are observed, which are thus described by Dr. Ferguson:—"His memory is impaired, and also his will ;

he has become more dependent on and yields more easily to others. His cerebration is sluggish; he cannot think closely, and he makes no effort to do so. Not only are there these mental alterations, but strange, often transient, sensory and motor phenomena are observed, ill-defined and variable, which seem to depend on the anæmia and consequent deficiency of nutrition of the whole nervous system. Later on he becomes stupid, will remain by his bedside for hours with a listless expression, and taking little interest in anything. Where there is any congenital mental instability this shows itself in irritability of temper, or in silly or uncalled-for destructive acts. Ultimately he becomes drowsy and lethargic, and is constantly sleeping, a sleep from which he can be awakened without difficulty into a heavy, stupid mental state, to fall back again as easily into drowsiness."

Dr. Stephenson in his "Notes on Racial Physique" accepts as a rule the axiom that the weight of the body in pounds is proportionate to the square of the body in inches. The mean coefficient for the adult Briton is 30; for the negro 31 for the men and 30 for the women, and for the coolie 34 for both sexes. The smaller numbers indicate the more favourable body weight. He finds that the negro has about the same size and weight as the British labourers, but the coolie is two inches smaller and 22 pounds lighter than the negro. Dr. Stephenson has some careful observations on the loss of weight in mania and melancholia. He observes that "a gain in weight coincident with mental improvement is most hopeful, while increase of weight without this is of bad omen, and indicates the onset of dementia."

The most important of the other papers in the volume are the Address of the Surgeon-General to the branch of the Medical Association, "On the Determination of the Time of Death from Post-Mortem Changes," by C. Young, M.D., on "Bright's Disease as seen in Malarious Countries," by E. D. Rowland, M.B., and a "History of the Leper Hospital," by W. S. Barnes, M.D. In the last paper Dr. Barnes holds that the proofs of the spread of leprosy through contagion are not sufficient to justify the compulsory segregation of lepers. He does not believe that the diminution or extinction of leprosy which has taken place in some countries can be attributed to segregation. In this view he is supported by Dr. Grieve, the Surgeon-General, a man of great experience and sagacity.

Altogether these reports afford pleasing proof that the energy of our race is exerting itself to advance medical science in a relaxing tropical climate.

On the Origin of Arithmetic (Über den Ursprung des Zahlbegriffs aus dem Tonsinn und über das Wesen der Primzahlen). Von W. PREYER in Berlin. Hamburg and Leipzig. 1891.

Professor Preyer, of Berlin, lays down as the foundation of his inquiry that all mental conceptions come through the senses. Arithmetic is the science of pure time, as geometry is the science of pure space. Preyer regards the ear as the organ of the sense of time, and the eye as the organ of the perception of space. How can a man who has no conception of time arrive at the conception of numbers? Children, he says, count and make estimates without a knowledge of numbers. It is sometimes assumed that all numbers are evolved through the addition of units, but this hypothesis assumes that they already know two numbers, and the knowledge of a method, that is of addition. These must first be acquired. Preyer thinks that the perception of numbers comes in the first place through hearing and the comparison of tones, and then becomes supported by seeing and touch. The sensation of intervals in musical consonance seizes upon the attention of children and uncivilized people. The lower numbers are learned through the feeling of pleasure at noting the intervals in musical tones—the first 1-1, the octave 2-1, the fifth $1\frac{1}{2}$, the major third $1\frac{1}{4}$, and the natural seventh $1\frac{3}{4}$, which goes between the fifth and the octave. The major third itself is not so primitive a sound as the fifth, because it lies between it and the first. The first indicates the repetition of a single tone with no rising in height. All the tones used in singing and in music are compounded of the octave, the fifth, the major third, and seventh. The other consonances are not needed to bring out the most pleasing harmonic tones, but they go to add more force to them. Preyer then holds that the lower numbers are at first names which indicate the recognition of the intervals of the tones which are most universally pleasing.

The learned Professor pursues his analysis through a pamphlet of thirty-six pages. I cannot subscribe to his assumption that arithmetic is the science of pure time. When a person recognizes four or five small objects at once there is a simul-

taneous recognition of so many points in space without any succession in time. The sense of hearing, however, brings us into closer relations with time than with space. Helmholtz has shown that in sound the number of the vibrations in the air and in the nerve fibres of the ear are identical. These vibrations in musical tones have a numerical relation to one another. No one will deny that numbers may be learned through the ear, that is, through the perception of the repetition of sounds, or in the intervals in the musical scale. But the power of abstracting numbers from these is an inherent quality of the human intellect, and this capacity can be exerted by those who never heard a sound, by the blind, and even by those who are both blind and deaf, that is numbers might be learned through touch. Some people rest their conceptions of numbers upon visual objects; others upon sounds. Inaudi, the arithmetical prodigy lately exhibited in Paris, made his calculations through heard numbers working in his mind. Other great calculators work their problems through visualized ciphers, aiding their mental operations by counting on their fingers. The arithmetical faculty is not dependent upon any one sense, although it could not be evolved in the absence of sensation.

A Dictionary of Psychological Medicine, giving the Definition, Etymology, and Synonyms of the Terms used in Medical Psychology, with the Symptoms, Treatment, and Pathology of Insanity, and the Law of Lunacy in Great Britain and Ireland. By D. HACK TUKE, M.D. Two vols. J. & A. Churchill, London. 1892.

The production of the "Dictionary of Psychological Medicine" is an event which ought not to be passed by without mention in the "Journal of Mental Science." For in two large volumes of 1,400 pages of this work nearly one hundred and thirty writers, besides the Editor, have contributed from their special sources of information the latest views and researches on all that concerns psychological and neurological medicine and jurisprudence. The indefatigable editor has gathered together a band of workers, not only from our own and other English speaking countries, but from the continent, and from almost every nationality

eminent physicians have sent articles on such subjects as they have made their own. Thus Charcot has written on Hysteria and Hypnotism, Professor Ball on the Insanity of Doubt, Ribot on the Disorders of Will, Bouchereau on Erotomania, Collin and Garnier on Homicidal Monomania, Ritti on Circular Insanity, Legrain on Alcoholism and Dipsomania, Motet on "Les Cérébraux." From Germany there are valuable contributions. Arndt writes on Electricity in Insanity and on Neurasthenia, Erlenmeyer on Morphomania, Cocomania, etc., and Nostalgia, Kiru on Influenza and Insanity, Mendel on Diagnosis, Ludwig Meyer on Chorea and Insanity, Neisser on Katatonia and Verbigeration, Tuczek on Ergotism and Pellagra. From Austria Benedikt sends contributions on Craniometry and on the Brains of Criminals, and Schwartzner on Transitory Mania. There are also valuable accounts of the state of the insane in various countries. Mierzejewski describes the Provision for the Insane in Russia, Cowan that of Holland, Pontoppidan that in Scandinavia, Morel in Belgium, Tonnini in Italy, and the last physician and Tamburini send articles on the Insanity of Ancient Greece and Modern India. From America also Dr. Tuke has gathered the experiences of several noted observers. Dr. Chapin, the well-known head of the Pennsylvania Hospital for the Insane, contributes an account of the insane in the United States. Dr. Cowles, of the Maclean Asylum at Boston, writes, as we should expect, on Nursing. From the pen of the late Pliny Earle we find a paper on the Curability of Insanity. Dr. Donaldson, formerly of the Johns Hopkins University, sends a valuable article on Psycho-Physical Methods, and Professor Jastrow one on the Reaction Time in the Sane. Dr. Lombard writes on the Temperature of the Head, and Mr. Sanborn on the Boarding-out of the American Insane in Private Families.

When we turn from foreign writers to those of our own country we find that a very large majority of our psychologists have contributed to the Dictionary, and in addition many who are not alienist physicians have brought their stores of knowledge to the elucidation of neurological or physiological problems. Thus, Dr. Clifford Allbutt writes on Insanity in Children, Dr. Wilks on Delirium, Dr. Bristowe on Stammering and other Affections of Speech, Dr. Barnes on Climacteric Insanity and Ovariectomy in Relation to Epilepsy and Insanity, Sir Andrew Clark on the Con-

vulsive Cough of Puberty, Dr. Playfair on Functional Neuroses, Dr. James Anderson on Epilepsies and Insanities, Professor Horsley on Cretinism and on Trephining, Dr. Buzzard on Peripheral Neuritis, Drs. Ringer and Sainsbury on Sedatives, Mr. Dent on Traumatism and Insanity, Dr. Thudichum on the Chemistry and Dr. Beevor on the Physiology of the Brain. The Editor contributes a number of valuable papers, and his colleague, the co-editor of this Journal, sends also a long list. The other contributions of our own psychologists it is difficult to specify when so many are excellent, but mention may be made of Dr. Orange's paper on the Criminal Responsibility of the Insane, Dr. Clouston's on Developmental Insanities, Dr. Bevan Lewis's on Psycho-Physical Methods and Reaction Time in the Insane, Dr. Mickle's on General Paralysis, and Dr. Duckworth Williams's on Baths.

Alienist physicians are brought much into contact with law, and the Editor has enlisted the services of a legal gentleman, who has fully and yet concisely expounded various points which came under this head. The law of trusts in relation to lunacy, testamentary capacity, marriage in relation to insanity, the law of partnership in the same relation, these and many other questions are treated by Mr. A. Wood Renton and the legal authorities cited. These will be found extremely useful, and will obviate the necessity of having recourse to legal text-books. There are also papers on the New Lunacy Law, by Dr. Outterson Wood, and on certificates by Dr. Hayes Newington.

Besides the more lengthy articles, the Dictionary abounds in definitions and explanations of words, including those which are obsolete or little known. And besides these there are four features which deserve to be mentioned. The first is an Historical Sketch of the Insane, by the Editor, which goes back to the earliest ages and traces the history of the disorder from the Egyptians and Israelites to the Greeks and Romans, and thence through the middle ages to our own time. The whole sketch is most interesting.

The second feature is a paper on the Philosophy of Mind, by Mr. W. C. Coupland, which places before the reader the latest theories and views on the subject, and gives a clear *resumé* of the writings of the two chief living exponents of psychological science in this country, Professor Bain and Mr. Herbert Spencer.

The third feature is the Bibliography of Dr. Urquhart, compiled with great care and labour, which gives in chronological order, beginning with the year 1584, every book, treatise, or paper which has been written on insanity in the English language not contained in the psychological Journals. As we approach our own times the value of this becomes very apparent. Besides this bibliography it should be said that to many of the papers is appended a bibliography of the special subject with references to home and continental literature bearing thereon.

The last feature, but not the least, is the very full and complete index, which is invaluable to the student, and contains not the words already given in the Dictionary *sub voc.*, but references to every kind of subject touched on in the various papers, and the whole of the names of contributors and others, with the titles of their articles and references to subjects treated by them elsewhere. So full is it, comprised in 65 double column pages of very small type, that it is of the greatest possible assistance to the reader, and it is much to be desired that all dictionaries should be provided with so useful an adjunct. Great credit is due to Dr. Pietersen for his labour in the construction of it.

Dr. Tuke may well be proud of his work. It is doubtful if there is such another dictionary of any special branch of medicine. All must heartily wish it success.

G. FIELDING BLANDFORD.

Festschrift zur Feier des Fünfzigjährigen Jubiläums der Anstalt Illenau, herausgegeben von den jetzigen und früheren Illenauer Ärzten: Schüle, v. Krafft-Ebing, Kirn, Neumann, Fr. Fischer, Eickholt, Wilser, Landerer, Dietz. Mit einem Lichtdruckbilde von Illenau und zwei lithographierten Tafeln. Heidelberg. 1892.

These essays form a worthy commemorative contribution to the interesting occasion in honour of which they were prepared. Dr. Schüle's article is a Jubilee discourse, and consists of a glance at present and future questions in psychiatry.

We regret that we are unable to give even an abridgment of the historical events connected with this admirable institution, superintended as it has been by able men, and

directed at the present time by the distinguished alienist who is so altogether worthy of the associations and reputation of Illenau.

Krafft-Ebing contributes a paper on the differential diagnosis of *dementia paralytica* and of *cerebral neurasthenia*.

Kirn, of Freiburg, writes on insanity and crime.

Neumann, of Badenweiler, records observations upon fracture of the skull, concussion of the brain, and shock.

Fischer, of Pforzheim, describes changes in the *cornu Ammonis* in epileptics.

Eickholt, of Grafenberg, writes on the acute form of so-called Verrücktheit.

Ludwig Wilser, of Karlsruhe, on the transmission of mental peculiarities.

Landerer gives the results of treatment by *Duboisin* in mental excitement in women.

The last article is by Dietz on the simulation of insanity.

It will be seen from these titles that subjects of the greatest psychological interest are treated by the able men who have been or are on the medical staff of Illenau.

These memoirs are not only valuable in themselves, but they bear witness to the influence exerted by this institution upon the psychological medicine of the present day. This is the second Jubilee, the first having been celebrated when the asylum attained 25 years of age, and Schüle concludes his glance at the past history of Illenau in these words: Heute, an diesem zweiten Jubeltage, sei der festlich hohe Wunsch, in dem alles enthalten ist, wiederholt, und—ininnig wie am Schluss des ersten—Illenaus Wohl unserm treuen Gott befohlen.

We sincerely trust that the future of Illenau may be as distinguished in humanity and science as the past, and that when, in the order of events, it celebrates its centenary, the historian of the course which it has run may be able to present a yet more splendid record, if possible, of results, scientific and humane, than that which its estimable director has been able to present in the article from which we have quoted.

Die Literatur der Psychiatrie im XVIII. Jahrhundert. Festschrift zum Fünfzigjährigen Jubiläum der Heilanstalt Illenau, Baden, am 27 September, 1892. Von Dr. HEINRICH LAEHR, Geh. Sanitätsrath u. Professor. Berlin, Georg. Reimer. 1892.

Dr. Laehr seized the occasion of the Jubilee of the Illenau Asylum to prepare and present the above production. It forms a valuable contribution to psychological literature. From no one could it proceed so fittingly as from its author, who has accumulated during his lifetime a mass of references to works published, not only in Germany, but in other countries, on mental disorders and allied subjects. The present contribution is preceded by a brief but interesting sketch of reforms in the treatment of the insane in various countries.

This publication and Dr. Laehr's former work, entitled "Gedenktage der Psychiatrie und ihrer Hülfsdisciplinen in allen Ländern," of which a third edition has been issued, ought to be in the library of all medical psychologists, to whatever nationality they belong.

Atlas of Clinical Medicine. By BYROM BRAMWELL, M.D.
Vol. II., part 1.

We welcome the first part of the second volume of this important work. Among the subjects dealt with, two specially concern the nervous system, viz., certain cases of Friedreich's disease, and the clinical significance of alterations in the fields of vision. The high quality of the plates illustrating the part is fully maintained.

The cases of Friedreich's disease—hereditary ataxy—are two in number, and they supplement a previous article in Vol. I., in which the disease is described in detail. The peculiarity of these two cases consists in the retention of the knee-jerks, which, though slight, were distinctly present. In other respects, the cases conform to the usual type. The patients were brothers. There is no mention of the alcohol question, whether the father was addicted to the glass or not, though this point appears to have considerable bearing on the etiology of the disease.

A chapter of considerable length deals with the alterations in the fields of vision. The earlier part of this is, perhaps, a little lengthy and introductory, and might invite to Hamlet's ejaculatory comment on the actor's preamble, but we have no cause for complaint when the subject-matter is seriously tackled. Dr. Bramwell insists that hemianopsia, like optic neuritis, should be looked for in every case of suspected brain disease; this as a matter of routine. That most intricate subject of the visual representation in the cortex is very clearly dealt with, though we must say that, with every visual centre, we gaze regretfully at Professor Michael Foster's brief, but insufficient, *résumé* of the subject, viz., "that the hind portion of the cortex is in some way intimately concerned in vision." A protest is entered against the confusing distinction made between the terms hemianopsia and hemiopia. As the writer very justly remarks, if one term—hemianæsthesia—will suffice for a defect in general sensation, why should two be required for the special sense? Of course, we are not suggesting that in any case the specialist's fee should be less than two guineas, and if hemiopia do not seem quite long enough for the purpose, then, by all means, hemianopsia, but not both!

Among the subjects of general medicine, there is an article on scrofula. We are delighted to see that the term still survives, and that Dr. Bramwell defines it as a constitutional state, which exhibits a special vulnerability of the tissues towards the insults of the tubercle bacillus; in other words, it recognizes that it takes two to play at the game of tuberculosis, a fact we are beginning to recall to mind. A beautiful plate illustrates this disease. Dr. Bramwell does his work very thoroughly.

Diseases of the Nervous System. By J. A. ORMEROD, M.A., M.D.Oxon., F.R.C.P. Churchill. 1892. Students' Guide Series.

Students' manuals are very numerous in these days, but we consider that Dr. Ormerod has really rendered a service to students of nervous disease with this short treatise. Nervous disease, as depicted in the heavy tomes of our libraries, is really a "*monstrum horrendum . . . ingens*," and by the time the student has waded through their pages it is he who lacks

sight. Neither whole nor half-vision centre retains any clear image, and the word-visualizing centre is quite blinded. The author of this manual puts matters very clearly before us in good plain English, and the diagrams, to help out the text, are well-planned and well-selected. An anatomical introduction is followed by a section on the methods of examination, including those of the special senses—eye, ear, smell, etc.—and of special mechanisms, such as the larynx. The examination of the eye is excellently handled. Electrical examination and the interpretation of results is also well given. The special diseases are compressed into very portable compass (we refer to cranial capacity), no attempt being made to discuss moot points or to illustrate by cases. Dr. Ormerod wishes essentially to teach the better-established facts of nervous disease, and in this we think he succeeds admirably; at the same time, he does not blink exceptional records, *e.g.*, under Friedreich's disease. Whilst accentuating the fact of the absence of the deep reflexes, he does not omit to say that in some very rare cases they may be retained or even exaggerated. The writer is, of course, himself an authority, and we can take in knowledge, therefore, with a sense of security. We are confident that this manual will prove very helpful.

The concluding chapter deals with diseases of which the organic basis is not known. This list includes chorea, as well as hysteria and neurasthenia. We must confess we regret that Neurasthenia should receive official recognition; till this trouble crystallizes into something more definite than its present formlessness, we should deny its claim to a separate individuality.

On Education from the Medical Standpoint. By G. E. SHUTTLEWORTH, B.A., M.D., etc. *Inaugural Address as President of the Lancashire and Cheshire Branch British Medical Association, June 29th, 1892.*

Annual Reports of the Royal Albert Asylum, 1890 and 1891.

Those who are interested in the education of the idiot will find much that will repay their perusal of the annual reports of the Royal Albert Asylum, and also of the Address on education, given by Dr. Shuttleworth. He considers the relations of heredity to it; the relation of education to development; the manual training in schools; the rôle of

technical education in school life; education in relation to sexes. Everything that the medical superintendent of the above institution writes is characterized by common sense, and implies too a vast amount of practical knowledge of weak-minded children.

Our space does not allow of our entering upon the many important subjects to which Dr. Shuttleworth alludes. Our chief object is to draw renewed attention to the case, and so far as possible the improvement of the feeble-minded. We may add that during 1890 and 1891, 137 patients were discharged, their mental condition being as follows:—Recovered, 1; much improved, 43; slightly improved, 35; not improved 12.

Mental Science and Logic for Teachers. By THOMAS CARTWRIGHT, B.A., B.Sc. (London), Principal of the Birkbeck Training Classes. London: Joseph Hughes and Co. 1892.

This is an unpretentious but useful little book. It contains a brief sketch of mental science, and of training of the senses, and of memory, etc. Some good observations are made on the cause of the misconception which arises in debate and discourse, some of it being due to employing words alike in sound but different in spelling, and words alike in spelling but different in sound, but much more from the equivocation springing out of identity in both sound and spelling.

A number of answers to questions in mental science and logic are appended.

Elementary as is this brochure, it would be well if advanced students would form as clear a conception of the meaning of the terms they employ as Mr. Cartwright's book would afford them.

The Colonization of Epileptics. By FREDERICK PETERSON, M.D., New York. Reprinted from the "Journal of Nervous and Mental Disease," December, 1889.

The subject of the above article attracts increasing attention. In 1887 Dr. Peterson gave an account in the New York Medical Records of his visit to the Bethel Epileptic Colony at Bielefeld, near Hanover, and in this paper he gives a very interesting account of its history and condition.

He comments on the inadequacy of the institutions in his own country to meet the needs of this unfortunate class, and he hopes to arouse public sentiment in their favour, desiring that some religious sisterhood, private philanthropist, or public official may provide for their wants a colony, which may prove to be a "home for the homeless, a place of refuge from many miseries, an educational institute for those who are forbidden the public schools, an industrial college for those to whom the ordinary avenues of trade are closed, a hospital where cure or palliation shall be possible, and where the highest scientific minds may be able to discover sometime a specific against one of the most woeful of human ills; in short, a prosperous, industrious, and thriving community, to serve as a model for many other such yet to be founded on this continent."

Dr. Ewart, in his article on "Epileptic Colonies," in this Journal, April, 1892, gives a sketch of the same institution, and acknowledges the assistance afforded him by Dr. Peterson in regard to the steps now taken in the United States in regard to the provision for epileptics. As is well known, the Charity Organization Society in England is interesting itself in the subject, and we may hope that England will not be long behind hand in their care of the epileptic by colonization and otherwise.

Illustrations of the Nerve Tracts in the Mid or Hind Brain and the Cranial Nerves arising therefrom. By ALEX. BRUCE, M.A., M.D., F.R.C.P.Ed. Edinburgh and London: Young J. Pentland. 1892.

This admirable Atlas, intended for students in Neurology, is deserving of all praise. The Plates are taken from the foetal brain, with one exception, inasmuch as the course of the tracts and cranial nerves can be followed with greater facility than in the adult. We wish Dr. Bruce's labours the success they so richly deserve.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect.**Asylum Reports for 1891.*

Aberdeen.—The directors have devoted much attention to the consideration of the best means to improve the character of the accommodation for the poorer class of patients, and they hope to be able to produce fully-matured plans and proposals at an early date. When it is remembered that the older buildings date from 1799 it can be easily believed that they are considerably behind the times and require numerous and extensive alterations to bring them up to modern requirements.

Dr. Reid records the following case:—

A female, aged 40, was admitted on June 23rd in a weak and emaciated physical condition, labouring under active melancholia, and with a fractured arm, caused by her having thrown herself from the second flat of a tenement house. Great vigilance had to be exercised owing to her suicidal tendencies. Everything went on as satisfactorily as could have been expected until the 27th July, when she was seized with great vomiting and great pain in the epigastric region. Without entering on full medical details it may be briefly stated that, from the aforesaid date to the second week of October, the patient passed no fewer than 125 pins and sewing needles, with, in addition, many darning needles and hair pins; also a pair of spectacles in pieces and a crochet needle. Although she had lost much flesh, at the end of October recuperative power set in, and she was slowly and gradually recovering both in body and mind when an attack of pneumonia supervened, and she died on the 13th December.

Berkshire.—It is impossible to peruse this report without experiencing great regret at the untimely death of Dr. Douty. He had done good work since his appointment, and it seemed as if he had many years before him during which to carry out his ideas.

The Visitors report that although strongly urged by the Commissioners to appoint a second assistant medical officer they had declined to carry out the recommendation from motives of economy. But since the passing of the new Lunacy Act they find that the time of the medical superintendent has been so much taken up with clerical work that it has become necessary to make the addition to the medical staff.

The church services have been improved by the substitution of an organ for a harmonium.

Concerning the causes of insanity, Dr. Douty says in his report:—

An idea is prevalent amongst the public that intemperance in drink is the cause of a majority of the cases of insanity which occur amongst both the upper and lower orders of society; I have even heard a man make a definite statement to the effect that the patients in public asylums are worthy of faint sympathy, because they were “pretty well all of them there through drink.” I desire

again to take the opportunity, provided by my annual report, to say that such statements could be made only by those ignorant of facts, that they are untrue, and constitute therefore a great injustice to those afflicted with mental disease in this country. No one is more cognizant of the disastrous effects of the abuse of alcohol than the members of my profession, and we make, therefore, as careful inquiries as we can, when taking the history of a case, to discover the previous habits of the patient. Of the persons sent to us during 1891 only four could be suspected of having been addicted to the abuse of alcohol. The remaining 84 were, on the other hand, persons who had led sober and hitherto industrious lives, had been held in respect by their neighbours, and were sent to the asylum because their health had failed through no fault of their own. I think I may safely say as a rule 90 per cent. of our cases have no connection whatever with alcohol. In some agricultural counties the abuse of alcohol appears to be more common than it is here; and in the larger towns, as well as in the thickly populated districts of the midland counties, drunkenness is, I believe, a more frequent cause of insanity.

Bethlem Hospital.—The female attendants are now provided with uniform, and it is reported that the result has been a most satisfactory and gratifying improvement in their appearance.

Dr. Smith points out the great improvement that would be effected by the erection of a suitable hall for entertainments. It must be admitted that the present arrangements for associated amusements are not worthy of this important hospital.

Early in 1891, in response to the representation made by Dr. Smith to the Governors, as to the increase of work and responsibility entailed by the ill-advised Lunacy Act, 1890, an additional assistant medical officer was appointed.

Birmingham. Winson Green.—A severe outbreak of influenza occurred. It continued about three months and attacked 160 persons in all, 120 being patients. In no fewer than 24 cases the disease was complicated by the occurrence of pneumonia, and of these 23 died.

Nearly the whole of the drainage has been reconstructed, with marked benefit to the general health.

A second assistant medical officer has been appointed. Dr. Whitcombe continues the instruction of his nurses and attendants. His Visitors presented each successful candidate at the examination for certificates of proficiency in nursing, twenty in all, with a silver medal.

Birmingham. Rubery Hill.—During the influenza epidemic only two patients and two nurses were attacked—a remarkable contrast with the other borough asylum.

One nurse and one male patient suffered from typhoid fever, the cause of which could not be discovered.

Bristol.—In accordance with the recommendation of the Commissioners a second assistant medical officer has been appointed.

It is expected that the administrative and residential block, which for the last two years has been in course of erection, will be shortly ready for occupation.

Cambridge.—The important structural additions and alterations

begun a year ago are still in progress, and, so far as they are completed, are reported to afford excellent accommodation.

Cheshire. Parkside.—Additional buildings for the accommodation of 96 patients and 10 nurses are now in use. The best means of heating and ventilating the asylum are under consideration. A second assistant medical officer has been appointed. A sitting-room for nurses when off duty has been provided and suitably furnished.

Argyle and Bute.—Various structural improvements have been carried out during the year. Land formerly rented is no longer available, and the asylum estate now extends to only 50 acres, an amount evidently too small, and the Board has hitherto failed in obtaining more.

In his report Dr. Cameron remarks :—

Some difficulty is occasionally experienced, especially in the case of private patients, in obtaining accurate information as to the duration of insanity, and in some instances patients are represented as having been insane only for a few days or weeks when, in fact, they have been so for months or even years. For example, in one case the duration of insanity was entered as one week, and in another as ten days, whereas it had lasted in the former case for one year and in the latter for three. It has been observed that in almost every case of general paralysis affecting a native of the district the patient has for some years lived in a large town.

Bedford, Hertford, and Huntingdon.—The mortality was markedly increased by the occurrence of influenza. It is mentioned by Dr. Swain that :—

Of the causes of death pneumonia occurred in the unusually large number of 22 cases; 17 occurred to male patients, and probably 10 of them were attributable to influenza. In the early part of May there were 11 successive deaths from this disease, which was of a peculiarly fatal character. The duration of the attack was very short, and treatment did not appear to produce any amelioration of the symptoms.

It may be pointed out that the report by the Commissioners in Lunacy is not given.

Carmarthen.—After due inquiry the Visitors resolved to dispense with the services of one assistant medical officer, thus reducing the medical staff to two—the medical superintendent and one assistant. Against this reduction the Commissioners strongly protest, and with very good reason. Had the staff been strengthened by the appointment of one or two clinical clerks the absence of a second assistant would have been made good, and no objection could be raised to the arrangement made by the Visitors. A laboratory for pathological and photographic work is in course of erection.

A female patient, when warming herself at an open fireplace in the observation dormitory, accidentally set fire to her clothing and sustained fatal injuries. The Commissioners suggest a slow combustion stove to obviate the risk of future accidents.

The wages of the attendants and nurses appear small and the

amount of leave scarcely up to the average. Dr. Hearder suggests that when these subjects are considered by the Committee the scheme should include the erection of cottages for married attendants.

Cheshire. Upton.—A new steam laundry has been erected and the washhouse enlarged. After inquiry as to the best system of drying, Blackman's has been introduced.

With reference to the recommendation of the Commissioners in their last report as to the more frequent holding of *post-mortem* examinations, a question arose as to the legality of such examinations without the consent of the friends of the deceased, and it was decided to take the opinion of the Commissioners on the subject, and also to ascertain the practice at other institutions. As the result of such inquiries it has now become the rule of the asylum to hold a *post-mortem* examination in all cases, unless the friends of the deceased express their objection to such examination being held. The friends of all patients have been advised of this rule.

In connection with the above paragraph, which is an extract from the report of the Visitors, we would venture to point out that such a notice, given to the nearest relative when a patient is admitted, may greatly distress the feelings of the friends. Surely, when a man is removed to an asylum his wife and children are sufficiently grieved without receiving an official notice that a *post-mortem* examination will be held in case of death. Such notices are forwarded by several asylums, but it is within our knowledge that they have excited much mental distress, and have been strongly denounced as an unnecessary addition to the sufferings of the relatives.

A second assistant medical officer has been appointed. The asylum is quite full, and the question of providing further accommodation cannot be delayed. The report by the Commissioners is not given.

Derby. Borough.—On admission and on discharge the patients are photographed. As the Commissioners remark, these portraits, inserted in the case books, will prove a valuable addition to the history of each case. As is now done in many asylums, Dr. Macphail has instituted classes for the instruction of attendants in nursing the sick and in their general duties. The death-rate continues very high. It seems to be due solely to the unfavourable nature of the cases admitted. Dr. Macphail points out that one unfortunate effect of the new Lunacy Act is that of precipitating the discharge of patients who, at the end of a year's residence, though technically not insane, were merely convalescent, and would certainly have benefited by a little longer residence in the asylum.

Derby. County.—Many structural improvements are in progress in this asylum. These include reconstruction of the drainage, overhauling the ventilation, and many minor though important pieces of work, but Dr. Lindsay points out that much remains to

be done if the asylum is to be thoroughly equipped and rendered efficient for the cure and care of the insane poor of the county. In the opinion of the Commissioners the most pressing want is the provision of better infirmary accommodation.

Concerning phthisis, Dr. Lindsay remarks :—

Pulmonary consumption comes next in frequency, accounting for 13 deaths, one less than in 1890, which must undoubtedly be considered a large mortality from this disease. An analysis of the deaths from pulmonary consumption shows that only two had resided under a year; the other 11 had been resident from one year and seven months up to 11 years and a half, the average duration of residence of each case having been four years and eleven months. These facts are significant.

Our high mortality from this disease, though doubtless not entirely due to insanitary conditions, would tend to indicate some defect in the sanitary condition of the asylum, such as overcrowding, insufficient air space, impure air from inadequate renewal, and defective ventilation and warming, evils from which this institution has suffered in the past, and some of which the Committee are now endeavouring to grapple with and remedy.

Devon.—A new block for female patients has been completed and is in occupation. In what is described by Dr. Saunders as “a characteristic caustic and choleric report,” the Commissioners indicate other additions and alterations which they deem necessary. He recommends the erection of a properly equipped infirmary for men, mess-rooms for attendants and nurses, and better and adequate provision for the resident quarters of the medical officers. An increased amount of leave for the attendants has been sanctioned, in the hope that it may contribute to their content and well-being, but some doubt is felt as to whether this will be successful.

It is mentioned that it has been the practice for many years to discharge patients on trial for one month, with a weekly allowance of seven shillings, which is a great advantage to convalescents or those seeking employment.

Dundee Royal Asylum.—In his report Dr. Rorie remarks :—

It is still supposed by many that the treatment of patients in an asylum differs entirely from that pursued in a general hospital, but such is far from being the case. A certain difference will, no doubt, always exist, but every year this asylum at least is becoming more and more an hospital for the treatment of mental and other allied and nervous diseases, and less and less a place for the mere detention of patients. The diseases treated in asylums are of much longer average duration than those admitted into general hospitals. In the latter the physical conditions may vary from day to day; but although in the former, in the chronic insane, weeks and months may pass without much marked alteration, the recent and acute cases require constant medical supervision, as the symptoms may rapidly change. The duties of the medical staff in regard to those closely resemble, therefore, those required in an ordinary infirmary. Thus on the admission of a patient into the asylum a careful examination is at once made, with the view of ascertaining whether injuries exist, and at the same time as full an account as possible is obtained of the patient's previous history from those who accompany him. . . . As complete a history of the case as possible having thus been obtained, and all the deviations

from the normal standard having been noted, attention is then directed to the means of treatment; and, in the great majority of cases, as in ordinary diseases, the first thing that has to be attended to is the bodily condition of the patients. Few patients approach the popular idea of a lunatic. Some, no doubt, are violent, destructive, and dangerous enough, but the great majority are weak, ill-fed, and suffering from various physical ailments, requiring the administration of medicines as well as nutritive food. If serious illness exists the patient is kept in bed, and the changes in pulse, temperature, etc., recorded twice a day on the clinical chart placed at the head of the bed. Up to this point then the treatment is practically that pursued in ordinary hospitals. It is in the subsequent treatment of the patient, when, after the bodily functions have been as far as possible restored to their normal condition, and attention directed to the moral treatment in the employment of the various modes of occupation, amusement, etc., as means directly influencing the mental faculties or powers, that any differences are found in the practice of the two institutions.

Dr. Rorie continues to devote considerable attention to the special training of his attendants and nurses.

Dumfries. Crichton Royal Institution.—The following is an extract from Dr. Rutherford's report :—

This very exceptional state of matters—a diminution in the number of lunatics chargeable to Dumfriesshire parishes within the last ten years, when in all other parts of the country there has been an increase in pauper lunacy, so great that many of the district asylums have had to be enlarged—is directly attributable to the discharging from the institution of every pauper lunatic who can properly be allowed to live out of it. Many people have not the slightest compunction in accepting parochial aid for the maintenance of a near relative in the asylum, who would not think of asking such aid to help them to keep that relative at home. Another great cause of the decrease of pauper lunacy in this district is the action of the directors in extending the benefits of the reduced board fund—the special charity of the institution—whereby persons not of the pauper class, and anxious to avoid becoming pauperized, have their relatives treated in the institution at, in many cases, almost nominal rates of board. During the past year the benefits of the reduced board fund were granted to 47 applicants. The recipients were admitted at ordinary rates, varying from £25 to £60, and the average sum allowed to each from the fund was £20, so that, in certain deserving cases, all that was paid for the patient was at the rate of £5 per annum. Many of the new cases recovered within six months, so that the burden upon the friends was very small.

New farm buildings are being erected. They include accommodation for 80 patients—thus forming a small detached asylum.

The open door system continues in full operation and apparently with much success. On this subject Sir Arthur Mitchell observes :—

There is only one entry in the register of restraint and seclusion, referring to the restraint in a strait-jacket for two hours of a patient who was so violent as to be dangerous to the attendants and patients. In the management of this large institution restraint and seclusion do not appear to be often found necessary, but it is understood that they are resorted to without hesitation whenever the necessity arises. So far as can be ascertained, the patients admitted into the asylum labour under forms of insanity which do not differ from the forms under which the patients admitted into other asylums are found to labour, and the rareness of the need of restraint and seclusion does not seem to have its explanation in a prevalence of the milder forms of

insanity among the inmates. Something perhaps may be due to the quietude induced by the absence of such signs of loss of liberty or restraint as exist in high walls or fences, in the frequent use of a key in opening and shutting doors, in irksome discipline, etc. There is a manifest effort in the management to do away, as far as possible, with all such things as are suggestive of loss of liberty. Several sections of the two main buildings were visited without having any door opened or shut by a key. Indeed the matron of the first house completed the visit with the reporter, not only without opening any door with a key, but without having a key in her pocket. In all the branch establishments the doors, without an exception, were found unlocked. The whole of the boundary walls have been taken down, and an open fence has been substituted. In various other ways an effort is made to prevent the patients from feeling that they are detained or confined, and it is difficult to see how this can fail to result in an increase of tranquility and contentment, or, in other words, in a diminution of excitement. Everything that was seen during a long visit seemed to show that the inmates enjoy a large amount of liberty, larger indeed than would be indicated by the record in the daily register of those on parole within or beyond the grounds.

The report is embellished by some excellent photographs of the asylum buildings.

Earlwood Asylum for Idiots.—The following are short extracts from Dr. Jones's report:—

A question often asked is, which is the most suitable age for admission? I am inclined to think that six or seven years of age is the most desirable time to receive children at Earlwood, although your Board has in special circumstances received them as young as three years. Imbecile children of tender years are extremely helpless, and each child requires almost the undivided attention of a nurse. About a year ago, with your sanction, I started an electrical department for those unable to walk. Galvanism of the strength of from five to ten milliamperes was applied, and in my opinion with satisfactory results. Three out of four helpless children are now able to walk; and (with perhaps too limited an experience to make dogmatic statements) I am inclined to regard electricity as a valuable therapeutic aid, although the time and patience required in its application are not likely to add to its credit. The experience of others with whom I have communicated is less encouraging than that which I have recorded.

Its (idiocy) pathology, especially that of microcephaly, has aroused an unusual amount of interest of late, and in view of justifying the severe operations which have been recently performed upon cases of this kind, too much attention from scientific men cannot be devoted to the subject. If the operation of craniectomy be followed by the encouraging results anticipated of it, a heroic step in treatment will have been inaugurated which must gratify the most expectant physiologist. I speak with but little experience of the operation, but I have seen some of Professor Lannelongue's cases in Paris, and have assisted at the operation in England, and I am not favourably impressed with the results. I look upon it as one that is always attended with considerable risk, even when performed under the strictest antiseptic precautions; take in addition the difficulty there is in making an exact diagnosis of so general a disease, and we are face to face with what seems to me a rash, if not unjustifiable, procedure when undertaken as it is without a reasonable and due guarantee for success.

Edinburgh. Mavis Bank.—Nearly all the reports for 1891 contain references, more or less detailed, to influenza. This is a subject which has been largely written about of late, and in our notices

of the various asylums we have not considered it necessary to refer to the accounts of the epidemic, but the following paragraph from Dr. Keay's report may be given :—

Depression of mind during and after influenza is, of course, very common, but without pre-existing mental instability it would not pass into actual insanity. In almost all the cases a tendency to mental disease was found to have existed, and the influenza must have acted simply as the exciting cause of the attack. Insanity following influenza is quite a curable disease, and in its treatment nourishing food, warmth, good nursing, tonics, and stimulants are specially indicated. The curability does not appear to be lessened because of the existence of a predisposition to mental disorder, but this renders the patient more liable to similar attacks. If we should unfortunately be subjected to repeated visitations of the plague, it is to be expected that mental breakdown following the attack will be of much more frequent occurrence, for neurotic individuals who pass apparently unscathed through one attack will be unable to resist the depressing effects of repeated doses of the poison.

Edinburgh Royal Asylum.—The extensive buildings in progress are approaching completion. One villa, for the accommodation of 15 ladies, is occupied. Externally it is very handsome, and it has been furnished and equipped in the very best style.

In his official entry Sir Arthur Mitchell remarks :—

There is now a resident pathologist, and no opportunity is lost in advancing the knowledge of insanity by examination after death. This is not a new thing in the asylum, but a step onward has been taken by the appointment of a resident pathologist. The records of pathological work in the asylum have long been full, and they are constantly and diligently discussed and studied.

Indeed, no visit can be paid to the asylum which does not leave a strong and most pleasant impression as to the character of the medical management. A patient coming to the asylum has his condition as carefully and minutely studied as patients have who enter our large general hospitals or infirmaries, and whatever medicine can do to benefit him is done. Exercise out of doors, good food, warm clothing, comfortable beds, pleasant and cheerful surroundings, and a kindly forbearance are as much a part of treatment in this asylum as anywhere, but it cannot be visited without one being impressed with the attention which is bestowed on the strictly medical treatment of the patients. The separate hospital, which has been so much commended, and which is being widely copied, is an outcome of this feature of the management, which is due, of course, to the Physician-Superintendent, but it is right to add that he is ably assisted in his researches by his three assistants.

Concerning drink as a cause of insanity, Dr. Clouston writes :—

In regard to the causes of the disease, there are this year one or two rather striking facts. No less than 96 of them, or 26 per cent., are said to be due to intemperance. This is a very unusual proportion, for during the previous fifteen years only an average of 16½ per cent. had been due to this cause. It is my opinion that a physically strong and sound population is on the whole much less likely to take to excessive drinking than one that is weak, and that has from any cause a lowered nervous tone. Now it has been notorious that the years 1890-91 were attended by much disease of various kinds, by a very high mortality among the aged and weak, by an epidemic of influenza of a virulent and deadly type, with many serious complications, accompaniments, and effects. There seemed to exist, too, such prevalent influences for evil, that patients did not do so well as usual after surgical operations, that low asthenic types of inflammation were prevalent, and there was a very greatly increased general

death-rate. The psychology and causation of excessive drinking are no doubt complicated questions, but it cannot be doubted that one cause of drinking in many cases is a feeling of bodily and mental weakness, a conscious inability to do daily work, or to cope with difficulties, and a languor and want of enjoyment in life. Some people begin to feel in that way as they get old, others do so when they are below par in vitality, others after having suffered from disease, others at certain seasons of the year or in certain kinds of weather, and others when things go against them. Now it is mere folly to deny that alcohol gives a temporary stimulus and strength to most people when they are in this state. In such persons it relieves for the time the distressed and hopeless feelings, and it dulls the sense of helplessness. As human nature is at present constituted, an easy cure for misery or conscious weakness is to the majority irresistible, even though it is known that an after penalty will be rigorously exacted that will far outweigh the immediately pleasant effects. I am satisfied that some of my patients took to an excessive use of alcohol this year on account of a feeling of depression and inertia due to the causes I have indicated. In one case this was very evident. She was a poor man's wife, but most respectable, and ordinarily quite temperate in her habits. She got run down, she was nursing a child, and she found that a glass of whisky gave her a pleasant feeling of relief from depression and weariness. Once she had tasted of this *Lethe*, she craved for more and more, and her very bodily weakness destroyed her power of resistance. So this sober, decent woman, from this cause alone, drank bottle after bottle of whisky, until she became insane, and it did not take much to do this in the low state of health she was in. It needs only a small knowledge of human nature and the dependence of mind and morals on soundness and strength of body, to make one's feelings far more those of pity than of blame for such a woman.

Another case was that of a man, who, after an attack of influenza, was prostrate in mind and body, with a weakly acting heart, and a stomach that had no craving for food. Work was a trouble and pleasures were intolerable. Alcohol certainly roused him from the feeling of prostration, strengthened the heart's action, and seemed to brighten life. Is it surprising if it was craved, and soon its excessive use could not be resisted, and that in no long time it upset the highest of the brain functions—the mental? During the past two years the nervous vitality of the community has been manifestly lowered, and such cases were therefore more common than usual.

When one reads the following paragraph one may ask, Why is boarding-out not tried in England as at least a partial remedy for the ever-increasing number of patients confined in asylums? We cannot, however, give the reason here.

There can be no doubt that but for the boarding-out of quiet and incurable cases by the two Edinburgh parishes, we should long ago have been so overcrowded by chronic cases that we should have been unable to admit all the new cases from our district. This year 24 such cases were boarded out, and eight more were sent to the lunatic wards of the poorhouses. The number of pauper lunatics of our district not in the asylum was about 70 more at the end of the year than it was at the beginning. In 1881 St. Cuthbert's parish had only 26 cases boarded out; now it has 258. Altogether there are about 350 cases boarded out from our district. Whatever other advantages this method of caring for the chronic harmless insane, who are paid for out of the rates, has, it undeniably has this economical result, that no capital is sunk in providing asylum accommodation for them. In this way something like £50,000 has been saved to the ratepayers of Edinburgh.

Exeter.—Concerning the medical treatment of patients in asylums, Dr. Rutherford writes:—

Of late there have been many ill-natured attacks made on asylum medical

officers, in the medical press and elsewhere, by irresponsible persons, who state that the treatment of the insane by asylum medical officers does not keep pace with the treatment of other diseases. In making this statement they seem to have lost sight of the fact that the large number of incurably insane patients sent to asylums have passed through the hands of the medical profession on their way thither, and have had the benefit of their treatment.

A large proportion of the admissions into asylums is made up of worn-out brains, and wrecks of humanity, for whom there is no recovery, and who weigh heavily against the recovery-rate of the recoverable few. I have tabulated below the probabilities of recovery, in four classes, of all the patients admitted into this asylum up to 31st December, 1891. In each case the prognosis was made within a week of admission.

TABLE OF ADMISSIONS AND RECOVERIES.

Nature of Prognosis.	Number of Cases.	Percentage.	Recoveries in each Class.	Rate per Cent.
Hopeless ...	343	55·7	—	—
Unfavourable ...	123	20·0	12	9·7
Doubtful... ..	27	4·3	4	14·8
Favourable ...	122	19·8	96	78·6

In no less than 55·7 per cent. was the prospect almost hopeless, 20 per cent. unfavourable, and in no more than 19·8 was the prospect really favourable. In the latter class the recovery-rate was 78·6 per cent., and this does not include the cases which have not yet recovered, but which still have a good prospect of recovery. I do not think that the results of the treatment of any serious disease will show a higher percentage of recoveries than this. [But more relapses.]

Glamorgan.—It has been decided to enlarge the accommodation by erecting workshops and wards for 104 sick and chronic males.

The following paragraph from Dr. Pringle's report is an interesting contribution to the statistics of insanity:—

In my report for 1887 I submitted certain facts as to lunacy in Glamorgan, in the remainder of Wales, and in England and Wales generally, which showed in a most striking manner the relatively small amount of lunacy to the sane population in the first as compared with the other two, and now, with the returns of the recent census, I find the position of Glamorgan well maintained as one of the sanest counties in the kingdom. Whilst England and Wales has one pauper lunatic to 383 of the sane population, Wales (excluding Glamorgan) has one to 340, and Glamorgan has only one to 535, or, to put the matter in another form, instead of having 1,301 pauper lunatics in Glamorgan, we should have 510 more, or 1,811, were the ratio of insane to sane population the same as in England and Wales generally; or, in other words, we have 28·2 per cent. fewer lunatics to the sane population. From a ratepayer's point of view this means, I need hardly say, an immense saving. If interest on capital expenditure, cost of keeping up buildings, and maintenance of patients are considered, it represents at least £16,000 a year. The explanation I gave in my former report as to the singular and happy condition of Glamorgan as regards lunacy I still think is the true one, namely, that it is perhaps the most mixed county in the kingdom. Owing to its mineral wealth, abundance of work and high wages, it attracts the healthiest and most enterprising men of other countries

and districts. This is well illustrated by the nationality of the admissions of the past year. Out of 308 persons admitted 156 were born in Glamorgan and other Welsh counties, and 152 elsewhere, namely, 115 in England, 26 in Ireland, three in Scotland, and eight in foreign countries.

Govan.—The asylum is much over-crowded, but as the new district asylum is in course of erection there is now a prospect of this inconvenience being removed. The admissions included many feeble cases, with the result that the mortality was unusually high.

Glasgow, City of, Govan and Lanark.—During the year 10 cases were admitted for merely temporary detention by certificate of emergency, to allow time for removal to a more distant asylum. With the approval of the Commissioners this expedient was adopted in cases of extreme urgency, where the police declined to take charge of them, and pending negotiations for admission to out county asylums.

Gloucester. Barnwood House.—The extensive structural improvements begun in 1890 have been completed. Although the space in the dayrooms and dormitories has been doubled, the number of patients has not been increased. As Dr. Needham has now ceased to direct the working of this splendid hospital for the insane, he may be heartily congratulated on the great work he has carried out there. In his report he says:—

The percentage of recoveries upon all the admissions for the last 15 years has averaged 46·8 per cent., and for the last five years 57·2 per cent. When it is remembered that patients are received practically without selection, and in the order of their application, and having in view the obviously incurable character of many of the cases on admission, there would seem to be no justification for the statement that this and other hospitals and asylums for the insane are not as successfully combating disease as other institutions which have as their object the cure of diseases which are more entirely physical in their nature.

This is a fact which, in justice to our specialty, cannot be too strongly or too frequently insisted on. [Relapses?]

Gloucester.—From Dr. Craddock's lengthy report we extract the following:—

In this connexion (the causation of insanity) I wish to call attention to what, after careful observation of all classes of the insane for many years, I regard as an undoubted, though hitherto undescribed if not unrecognized, cause of insanity. There is no word which completely embodies what I wish to convey, the nearest to it being "over-indulgence;" by this I do not mean indulgence in any one direction such as drink, sexual passions, and the like, but simply the fact and the mental condition resulting from having everything one's own way, and never having been crossed. I can recall numberless instances, and I believe they become more common yearly, where the early lack of parental restraint and correction, it perhaps would be more correct to say the deliberate abstention on the part of the parents from such restraint, the desire to let a child have its own way, and an unwillingness on the part of parents to displease, have developed the egotistic faculties so greatly to the detriment of the altruistic, that the first sharp shock of opposition to a will hitherto owning no superior authority has been fatal to the maintenance of the mental balance. This is unfortunately no theory: several instances in both sexes during the past

year have impressed me so strongly that I have carefully inquired into the past history from the relatives. Unwillingly and hesitatingly the sad story is unfolded; the details may vary, but the inherent fault, a weakly parent constantly giving in to an obstinate and often passionate child, is ever the same. An abnormal development of the *ego* has been long recognized as a feature of the insane diathesis, and the obtrusive patient full of talk, discontent, and complaints, who so persistently thrusts his personality forward, has in many cases been the pasha of the family circle. I would not pose as a *laudator temporis acti*, but I do think that 40 or 50 years ago children would never have been allowed the licence they are now; in such cases as I have described there certainly has been "a bridle for the ass," if not, as is still more probable, "a rod for the fool's back." The humanitarian tendencies of the age frown on what used to be known in Tom Brown's day as a "good sound thrashing" to a disobedient child; but I am not sure that the age is any the better for it. Anyway the number of lunatics is increasing, and I record my deliberate opinion, not formed hurriedly, and not with any diffidence, that a faulty system of home education, and a kindly, though, I think, weakly and mistaken conception of parental duty is now playing no inconsiderable part in filling our asylums.

Hants.—Notice has been given that the Isle of Wight must make separate provision for its lunatic patients. Arrangements are in progress for the erection of an asylum in the island.

Three cases of typhoid fever occurred, but the origin of the disease could not be discovered. In the case of a female patient the fever is described as a most acute attack, with extremely high fever. It proved fatal on the fourteenth day.

Hereford.—In the hope of securing a good class of attendants and nurses, and of retaining them in the asylum service, four cottages are being built for married attendants, and mess-rooms and bedrooms are being provided. The scale of wages and amount of leave have been revised.

In the hope of postponing, for a time at least, the necessity for additional buildings, the Visitors met representatives of the Guardians in conference. The following resolution was passed:—"That the majority of the delegates do not feel themselves in a position to receive pauper lunatics from the Burghill Asylum further than as at present, the harmless imbeciles, for want of proper accommodation, and for want of proper attendants." The setting apart of one workhouse for the reception of pauper lunatics was brought before the Conference, and the Committee wish to call the attention of the County Council to this as a possible way of utilizing the present excess of workhouse accommodation.

Dr. Chapman recommends the erection of a good infirmary to accommodate about 20 patients.

Holloway Sanatorium.—This large hospital seems to prosper in every direction. Dr. Rees Philipps reports that no less than one-fourth of the gentlemen admitted in 1891 suffered from general paralysis. The female mortality was unusually high, about one-half of the cases having succumbed to a low form of pneumonia.

of which there were distinct outbreaks in February and June. Though doubtless infectious in its nature, as shown by the almost epidemic prevalence of pneumonia in London during the first six months of 1891, the limitation of the outbreaks in this hospital to the ladies' infirmary would appear to point to some predisposing local cause, probably to overcrowding and unfavourable situation of that building.

Extensive structural alterations were carried out during the year; others are in progress, and others are mentioned as more or less urgently required.

Lectures to the nursing staff have been continued, and nine candidates received the certificate of the Association. For the next examination 23 candidates have sent in their names.

Dr. Philipps further reports that several patients have been boarded out with employes of the Hospital in cottages either inside the grounds or within easy reach of the Hospital, and are visited daily by the assistant medical officers. The experiment has been attended by satisfactory results.

A lady is now junior assistant medical officer on the ladies' side. We sincerely hope this appointment will prove successful.

Hull.—The extension of the asylum buildings is under consideration, as is also the erection of cottages for the employes. The cases admitted were of an unusually hopeless character. The very high death-rate is accounted for by the great prevalence of general paralysis and other forms of brain degeneration among the men.

Inverness.—The crowded condition of both day-rooms and dormitories is under consideration. It is considered that the time has now arrived when the accommodation must be increased, especially for the sick and acute cases.

Isle of Man.—Dr. Richardson is not idle. Two cottages for artisans are in process of erection. A billiard-room and shoe-room have been completed. A course of lectures on "First Aid to the Injured" was delivered to the officers and attendants.

Kent. Maidstone.—It having been proposed that Kent and three neighbouring counties should unite in providing an institution for idiots, it was decided that it was not desirable that Kent should join such a scheme.

Kent. Chartham Downs.—After a service of seventeen years, Dr. Spencer retires on a pension, gratefully acknowledged by him as liberal, but the amount is unfortunately nowhere given. We wish to continue the Pension List given in this Journal some time ago.

(To be continued.)

2. German Retrospect.

By WILLIAM W. IRELAND, M.D.

On Loss of Consciousness following Cutaneous and Sensory Anæsthesia.

Professor A. Pick, of Prague, has a paper of fifty pages on the so-called muscular consciousness of Duchenne ("Zeitschrift für Psychologie und Physiologie der Sinnes-organe," 8 October, 1892). This seems to consist of a knowledge of the position of the limb and of the force of the muscular contractions expended to produce a designed movement. There must also be in the mind a conception of the designed movement. When through anæsthesia a person is unaware of the position of his limbs, he cannot, without the use of his eyes, ascertain where his limbs were when the movement began, and what point they had reached in a given time. He thus must use his eyes to guide the motions of his limbs. This assistance of the visual sense is generally afforded more or less in all complicated movements, even where the cutaneous and muscular sensibility are intact. The visual and muscular senses act together and support one another. We may execute movements with the aid of the cutaneous and muscular sensibility alone as in the dark, and, on the other hand, we may execute movements guided by sight alone. In 1848 Dr. Duchenne made observations upon three patients in whom there was a complete loss of cutaneous sensibility. He found that, when these patients were hindered from seeing their own limbs, they had lost the capacity for voluntary motion. On the attention being diverted from the execution of the designed movement, even when the eyes were left open, the movements were arrested, or were performed in an embarrassed manner in proportion to the degree of distraction. Such extensive anæsthesia is a rare affection. It sometimes follows severe epileptic attacks, or it may supervene after chronic epilepsy, or alcoholism complicated with fits. Sometimes in addition to the loss of cutaneous sensibility there is the suppression of taste and smell, and concentric narrowing of the field of vision. Sometimes the anæsthesia is confined to one side, or to one region of the body, and in such cases the phenomena of transfer have been observed. It is thus a functional affection occasionally attending hysteria. Drs. Thomsen and Oppenheim have minutely described eighteen cases of sensory anæsthesia occurring amongst lunatics ("Ueber das Vorkommen und die Bedeutung der gemischten sensorisch sensibeln Anæsthesie bei Geisteskranken." "Archiv für Psychiatrie," xv. Band, 2 Heft, und xvii. Band, 2 Heft.)

As we shall see, complete anæsthesia of the cutaneous surface

with sensory deficiency may occur with individuals who are quite sane.

It is curious that some patients affected with anæsthesia should remain capable of executing movements without the association of vision, while others are quite incapable; but this can be easily proved. We can, in fact, arrange a series of cases where the dependence of the patient upon one sense approaches more and more to completeness. Gley and Mariller have described an anæsthetic patient who could execute movements when the eyes were shut, through a species of motor memory, but more slowly and imperfectly than when the movements were seconded by the vision.

On examining the handwriting of anæsthetic patients, in many cases the writing was found unaffected; in others there was more or less disturbance. It appeared that with some patients the impulse to write came through visual images; in others through impressions of muscular sense and touch (*Kinæsthetischen Vorstellungen*). Binet observed that in some hysterical patients affected with anæsthesia, the closing of the eyes or the privation of light still leaves them in possession of all their motor powers, while in others the motions are rendered slower. In other cases closure of the eyelids produces almost complete motor incapacity, while in others again the suspension of vision brings on a clouding of the memory and of the intellectual faculties in general.

Professor Pick himself describes a case of the kind: a woman of twenty-one years of age, who worked in a sugar manufactory. She was brought to his asylum in a maniacal condition, suffering from hallucinations, aphonia, hystero-epileptic convulsions, and slight hyperæsthesia, which later on passed into complete anæsthesia and analgesia. There was narrowing of the field of vision, so that her hallucinations seemed to be fragments of figures. When she shut her eyes the sense of position was lost. She thought that she was standing when she was really sitting, and when she was only using one arm she thought she was using them both. On this patient Dr. Pick performed a number of thoughtful experiments. He found that sleep could be induced by closing the eyes and ears to external excitations. His paper contains references to analogous cases which have been described in German and French medical literature. Some of these we have studied in the works cited.

In cases of extensive anæsthesia there is a marked tendency on the part of the patient to stagger and fall when the eyes are shut. This, however, does not always happen.

Krukenberg (*"Deutsches Archiv für klin. Med.,"* xlv. Band, p. 210) describes the case of a sailor forty years old, afflicted with complete cutaneous and sensory anæsthesia. The manner of walking was much affected when the eyes were shut; but there was no falling. This man could be put into the hypnotic state by fixing

the gaze with a glittering object, rubbing of the eyelids, and the suggestion of sleep. The illness ended in death; but no lesion could be found in the brain.

Dr. Schütz showed to the Berlin Society for Psychiatry ("Neurologisches Centralblatt," No. 237, 1883) a patient twenty-three years old, suffering from paranoia with hallucinations, and ideas of persecution and suicide. This man had convulsions of the *recti abdominis* muscles without loss of consciousness. When shown to the Society he had complete anæsthesia of the whole cutaneous surface save the muscles of the right ear, the lips, and the fingers of the right hand. To touch, pain on pricking or pressure, cold, heat, and the interrupted current, he was equally insensible. The muscular sensibility was also gone save in the fingers of the hand in which feeling remained. When asked to execute a movement with shut eyes his limbs remained motionless.

In his "Leçons Cliniques sur l'Hystérie," Pitres remarks, in reference to some cases of anæsthesia of the muscular sense, that the shutting of the eyelids had a disturbing effect on the function of muscles which were not usually under the control of vision. Thus when both eyes were shut, the patient could neither speak nor put out the tongue, nor swallow some water already put into the mouth. When one eye was shut, he could still speak or swallow, but with much difficulty. When both eyes were closed the patient was as it were stunned, unable to comprehend what was said to him.

The case described by Dr. Strümpell ("Deutsches Archiv für klin. Medicin," Band xxii., s. 321) is so often cited that a short *résumé* may here be given. A lad fifteen years old was admitted to the Clinique at Leipzig complaining of giddiness, headache, and other nervous symptoms. A loss of cutaneous sensibility was soon noted, which in about three months progressed into complete anæsthesia. The patient was insensible to painful impressions, to cold, and to heat. Weights of from 15 to 20 lbs. laid on the arm were not felt, and a powerful faradic current could be passed through the limbs or body without the patient feeling anything. The conjunctivæ and the mucous membrane of the nose and throat were equally insensible. The senses of smell and taste were also wanting, and he neither felt hunger nor thirst. The lad had lost the sight of the left eye and the hearing of the right ear. Thus the right eye and the left ear were the only sensory organs remaining in function. When food was put into the patient's mouth he did not feel it, but he could voluntarily carry on the action of chewing, and he had a sensation which let him know that the action of swallowing was accomplished. The muscular system was weaker than formerly; but there was no paralysis save in the *extensor digitorum* of the right arm. The gait was peculiar and irregular, but could not be called ataxic, as in tabes.

The intelligence was diminished. By degrees the anæsthesia became less marked, when the intelligence was observed to improve.

On Dr. Strümpell starting the question, what he would do if the power of vision were cut off, the youth answered, "If I cannot see, I am nothing." The experiment was tried. The right eye was bound up, and the ear stuffed with wax. He uttered exclamations of wonder, and tried, by striking with the hand, to arouse impressions of hearing. In two or three minutes he fell fast asleep, the pulse and respiration being quieter. The sleep continued after the bandage was removed from the eye, and, under favourable conditions, might last for some hours. He could only be wakened by sounds in the ear, or a light flashed on the eye, or similar excitations. Dr. Strümpell considers that this condition resembles ordinary sleep. He is inclined to believe that the waking state can only be sustained by the stimulus of outward impressions, conducted to the brain by the peripheral nerves. He observes that there was no anæmia of the brain to be detected, assigning as reasons for so thinking that the pulse became harder when the patient was put into a cold bath, and that the redness of the skin after stimulation took as in a healthy person.

Dr. Gilbert Ballet ("Le Progrès Medical," 25 Juin, 1892) had under observation for about four years a similar case. His age was thirty-six. He had a neurotic heredity. The exciting cause was a fall from a rock into the sea. After this there were symptoms of neurasthenia and exophthalmic goitre. The thyroid was enlarged. There was trembling, and the pulse was from 120 to 160 in the minute. He had previously suffered from hysteria. There was anæsthesia, absolute in degree and completely covering all the skin and all the accessible mucous surfaces. Neither by touching, pinching, pricking, nor burning could the least sensation be excited. Though the patient could feel hunger, food was swallowed without any sensation. The muscular sense was entirely abolished on both sides of the body. He had no consciousness of the movements of his limbs and of the position in which they were. He was obliged to look at his arm or his leg to know where they were. Taste and smell were completely suppressed, and the sense of hearing notably diminished. There was a double concentric narrowing of the field of vision, especially of the left eye. His perceptions of the outer world only came through the senses of sight and hearing. Thus visual images played the principal part in his perceptions. He had often hallucinations, such as that he was in a forest surrounded by animals and armed men. As there was no way of comparing these appearances with his other senses, especially touch, he could not resist believing these hallucinations. "When I am with you," said he to the doctor, "I see well that all that is false, but, when I am alone, I believe in my nightmare and my dream." Dr. Ballet found the patient to yield gradually to suggestions like a hypnotized person.

I introduce, he goes on, a little wadding into the ears in a manner to close them as completely as possible. Nothing is yet changed in the attitude and the physiognomy of the patient. Then I lower the eyelids, and immediately the situation is quite changed. Aim sinks down. He is extended on the floor like an inert mass. I raise his limbs, they fall back a dead weight. When I take away the wadding which shuts the ears, the patient does not appear to hear any longer. It seems as if the little auditory sensibility which remained had been extinguished by shutting the eyes. In this case the waking state was promptly succeeded by the sleeping or lethargic condition. The rapidity of the pulse and the number of inspirations diminished. He found that this condition could be brought about by putting something in front of the eyes as well as by closing the eyelids. The patient could be awaked by opening the eyelids, when he rose and looked round in a confused manner, asking what had happened, for he professed to have no remembrance of this phase of his being.

M. Ballet discusses at length whether this condition was one of hypnotic lethargy or of sleep. He thinks that Aim's condition is rather a form of hypnotic sleep, from the intermittent contractions of the *orbicularis palpebrarum*, and from the resistance of the muscles of the jaw. By some cleverly devised experiments, he made out that the patient could be made to perform actions suggested while he was yet awake, and even that he could receive suggestions while in the lethargic condition. This, however, leads into subtleties for which we have at present no space. Even when it is granted that this singular condition resembles the hypnotic rather than the sleeping state, there is much that is mysterious and unexplained.

At the end of his paper, Dr. Pick cites a case reported by Liégeois, in which this strange species of insensibility and apparent loss of consciousness was induced by closing the ears, instead of shutting the eyelids. Dr. T. Grainger Stewart has allowed me to examine a patient, whom he has repeatedly shown to his clinical class and also to several medical societies. This woman had lost the sense of smell and the sight of the left eye through basal meningitis. There were evident traces of paralysis of one leg, but no general anæsthesia. Her hearing was good, and her intelligence did not seem to have suffered; but on closing the seeing eye, or on interposing some object between the eye and the light, she promptly fell into a condition of unconsciousness, which was ushered in by a loud snoring, and passed away in less than a minute, with a blowing through the half-closed lips.

This woman has been the subject of careful observation and experiments. She has recently died. The case will be published at length when the microscopic examination of the brain is completed. No doubt the observations and comments of the

learned professor will throw some light upon this obscure, though interesting field of inquiry.

Depth of Sleep.

Edward Michelson (Dis. Dorpat, 1891, quoted in "Allgemeine Zeitschrift," xlviii. Band, 5 Heft) has studied the depth of sleep at different times. For the first quarter-of-an-hour the sleep is not deep; then the torpor increases and reaches its maximum after three-quarters-of-an-hour. This lasts for half-an-hour and then diminishes. After two hours the depth of the sleep is diminished, and continues in about the same degree of intensity for five hours longer.

3. *Retrospect of Criminal Anthropology.*

By HAVELOCK ELLIS.

A Museum of Psychiatry and Criminology.

The deeply interesting and instructive Museum of Criminal Anthropology, founded by Lacassagne in the noble university on the banks of the Rhone, is well known to all medical visitors to Lyons. It is now proposed by the Faculty of Medicine at Turin to establish a museum somewhat similar in character, though of wider scope, at the university with which Lombroso has so long been connected. All the material, so far as it can be collected, for the study of the causes, symptoms, and therapeutics of insanity and criminality will here be brought together. The medical man, the lawyer, and the philosopher will be able to examine the "palimpsests" of the asylum and the prison, the data concerning the ætiology of crime and mental perturbations, the geography of crime, etc., and the skeletons and brains of the insane and criminal will demonstrate the close connection between mental aberrations and corporal abnormalities. Such a museum must form a most valuable source of instruction in psychiatry, and it is to be hoped that the initiative of France and Italy may before long be followed in England. I may add that a Museum of Psychology—not of morbid psychology especially—was founded a few years since at Florence by Professor Mantegazza.

Lombroso and the Natural History of the Criminal.

Dr. H. Kurella, the well-known editor of the "Centralblatt für Nervenheilkunde," has just published, as one of Virchow's "Sammlung gemeinverständlicher wissenschaftlicher Vorträge," a pamphlet which is perhaps the most judicial statement in brief compass of the position of criminal anthropology which has yet appeared ("Cesare Lombroso und die Naturgeschichte des Ver-

brechers," Hamburg, 1892). Lombroso is accustomed to unbounded admiration and equally unbounded contempt from incautious partisans or ignorant opponents. But both are usually in the wrong. The discoverer of a new continent is not necessarily fitted to survey the territory he has discovered, foot by foot; while there are many excellent and careful surveyors who are not exactly fitted to discover new continents. Dr. Kurella is fully able to discern Lombroso's merit in opening up the scientific study of the criminal, and discovering new sources of evidence concerning the nature of criminality, while at the same time he perceives that he is often lacking in critical discrimination, and in the accurate use of statistics. He especially insists on the importance of Lombroso's method of studying the poetry and art of criminals (as shown in the marginal notes of books, on walls, utensils, etc.), as in the very first rank of contributions to modern morbid psychology. "Lombroso here shows himself as a genuine interpreter of Nature, and as a genius only equalled by Dostoevski among the moderns, and that wonderful criminal psychologist, Shakespeare, among writers of older date." Dr. Kurella finally reaches, after glancing over the whole field of evidence, the conclusion, which is constantly becoming clearer, that the criminal is related to the idiot, that criminality must be regarded as one of the branches of the family group of degenerations called idiocy. "It is the merit of Lombroso to have shown that most incorrigible professional criminals show the type of so-called moral insanity, and that this type exhibits a multitude of characters—partly atavistic and due to inhibition of development, partly pathological—which enable us to recognize moral insanity as one of the groups of imbecility." In passing Dr. Kurella refers to the Italian painter, Luini, as a murderer. There is, I believe, no reason to suppose that Luini was a criminal; it is possible that the author was thinking of Latini.

Examination of Ten Criminals.

In the "Archivio di Psichiatria," 1892, fasc. ii.-iii. ("Esame di Dieci Delinquenti"), Dr. Moraglia presents the results of the detailed examination of ten criminals in the prison of Finalborgo. Three were convicted of rape, one of theft, five of murder; the last was a woman imprisoned for corrupting children. The woman was a "magnificent case" of sexual perversion. It is worthy of note that all the nine men examined presented without exception dark and scanty hair, irregular teeth, a massive jaw, more or less prominent but always pronounced cheek-bones, and defective or altogether absent moral sense. "These characters," concludes the author, "which may almost be said to be peculiar to the criminal man, are rarely found united in the normal man; still more rare is it to find them in the normal man united to the other special abnormalities observed in the subjects examined."

The Feet of Criminals, etc.

Ottolenghi and Carrara (of Lombroso's Medico-Legal Laboratory at Turin), by their recent investigations of prehensility of the feet in the insane and criminals, have burdened the alienist with a new anthropological character ("Il Piede prensile negli Alienati e nei Delinquenti," "Archivio di Psichiatria," 1892, Fasc. iv.-v.). Stimulated by Regnault's investigations of the prehensile foot in Indians, they have examined 100 normal men, 200 criminal men, 31 epileptics, 62 normal women, 50 prostitutes, 64 criminal women, and (to a more limited extent) 36 idiots; all were over eighteen years of age. A drawing of the foot and the space between the two first toes was taken, the subject standing erect and the toes in repose, and then another drawing was taken after the subject had been requested to abduct the first toe to the greatest extent possible. In both conditions the extent of the space between the toes was measured at the base and also at the periphery (i.e., from the centre of the extremity of the first toe to the centre of the extremity of the second). The space was found to be smallest in normal men; a space over three millimetres (it is very commonly below this) was found to be three times more common in criminal than in normal men. The epileptics closely resembled the criminals in this respect. The proportion of normal female subjects showing a wide space was much larger than of male, but there was little difference between the normal and the criminal women. The prostitutes, on the other hand, were much more abnormal in this respect, and ranked with the criminal men. The idiots were the most abnormal of all, although in their case it was not possible to take measurements during forcible abduction. In the course of the investigations two cases of true prehensile power were met with. One was a criminal, a gymnast, and the son of a clown; although he had made no previous experiments he was found to possess great skill in taking up small objects between his toes. The other was an epileptic criminaloid, who from childhood had spontaneously used his feet in the same way as hands in dressing himself, picking up the most minute objects, etc.

It will be seen that the results of these investigations fall harmoniously into line with the various investigations as to the anthropological degeneracy found among prostitutes, epileptics, and idiots which have been made by Lombroso, Sollier, Mme. Tarnowsky, etc.

Abnormalities of the Ear in Criminal Women.

In order to complete his careful studies on the chief abnormalities of the pinna among normal persons, the criminal and the insane, Professor Gradenigo, of Turin, has now given the results of some further investigations on 245 criminal women ("Sulla Conformazione del Padiglione dell' Orecchio presso le Donne Delinquenti," in "Archivio di Psichiatria," Vol. xiii., fasc. 1).

In 133 cases he found the pinna normal; in the remaining 112 cases 282 abnormalities were found (2.9 each person). The most frequent abnormalities were prolongation of scaphoid fossa into lobule, adherent lobule, and prominent antehelix. As in previous researches he finds that unilateral anomalies are more common on the right side (40 to 22), if we except the outstanding pinna (*ad ansa*), which is found 11 times on the left side for twice on the right. He concludes that criminal women show a greater number of abnormalities of the ear than women belonging to the general population, but a smaller number than insane women. An exception must be made in the case of the ear *ad ansa*, which is most frequent in criminal women.

Vali has confirmed Gradenigo's conclusions by a series of observations on normal and insane persons in Austria. His figures are somewhat lower than Gradenigo's, as concerns normal persons, though not on the whole lower as concerns the insane; he did not examine criminals.

The Confessions of a Thief.

I have received, by the kindness of Mr. Ardill, Director of the Sydney Rescue Work Society in New South Wales, Part I. (without title page) of "The Confessions of a Thief" by Joe Bragg (alias Albert Bourke), a pamphlet published in Sydney. It is a genuine and remarkably truthful document (the language liberally besprinkled with criminal *argot*), and is of singular interest to the psychological student of criminality. Joe Bragg's paternal grandmother, as we incidentally learn, had been in a lunatic asylum a great many years, and "had been of the same violent disposition as myself." His mother "had always a strong propensity to religion. She told me that when a girl in the service of Sir John Franklin, who was the Governor of Tasmania, she had once fasted from meat for forty days, and that during the whole of that time she had been afraid even to swallow her spittle." From the remark that in old age she was "then sober," it may be inferred that she had also been given to drink. Thus on both sides Bragg came of insane and neurotic stocks. He was born about 1851. Up to the age of thirteen, though suffering much from neglect and hunger, he had "always been disposed to honesty;" at that age, "being left homeless and destitute by parental drunkenness and stung by the pangs of hunger," he stole a loaf of bread. He was imprisoned for three months in Darlinghurst gaol, and was thus enabled to have frequent intercourse with many hardened criminals. On the very day of his liberation he began a career of crime which lasted for twenty-two years. He was soon again imprisoned for three months, "and the instructions I received during these three months considerably improved me in my profession. The Government had placed me in a position to learn a trade, and, having learnt it, I was deter-

mined to work at it." He practised it successfully. "Before I was seventeen I had committed thousands of robberies, and had been convicted about a dozen times." Once, when he was in Parramatta gaol, he heard much praise of a young man who had recently received twenty-five lashes for knocking a warder on the head with a pick handle. Bragg resolved to emulate him. A few days after, when a warder spoke sharply to him, he struck him on the head with a billet of wood; this was the first of a long series of violent outrages, each followed by severe punishment. It is remarkable that during one period of solitary confinement he taught himself to read a little; he had previously only known the alphabet. Without sufficient food, suffering from scurvy, and addicted during long periods of solitary confinement to masturbation, he was reduced almost to a skeleton, and his mind became disordered. He was affected for a time by an obsession of somewhat the same kind as his mother had suffered from. "For a time I tried to be religious and prayed often. If, when I thought of prayer, I did not immediately kneel down and pray I accused myself of laziness; and, thinking that God was displeased with me, I had no rest till I prayed." During a subsequent term of imprisonment he was pronounced insane by the Medical Board and sent to Gladesville Asylum. Here he pretended to be "a quiet simpleton," and ingratiated himself with the keepers, who reported favourably of him to Dr. Manning; he thus received privileges which enabled him to escape. He was, however, recaptured, although finally discharged in a month, and was enabled to thief for several months "in an orderly and discreet manner." Shortly afterwards he was sent to Berrima Model for six months when still only twenty-six years of age. He came out "an honest and religious man," and received religious instruction from some nuns. The story of his relapse is curious. He saw a man on his back asleep. "Instead of going right on I stopped and sat on the top rail of a fence over against him. No one was about. I thought to myself 'There is a gift if I were on the cross, but I am religious now, and cannot touch him.' I resolved, however, to have a close look at him. When I got close beside him I noticed a bulge in one of his trousers' pockets. 'That I may know what a chance I am throwing away,' I said to myself, 'I'll just see what he has in that pocket.' I there found nine pounds ten in gold. Taking a sovereign I put the rest back into his pocket. I intended to take this pound merely as a loan, and closely examined his features that I might know him again, to return it to him when I should be in better circumstances. When I had reached Harris Street, which was only a short distance from where he was lying, I looked back at him. Pulling the catechism and prayer-book out of my pocket I looked at them. I cast my lamps [eyes] over their pages and became sceptical. There was a sink close at hand. Throwing them both into the sink I danced

about, and swore and blasphemed like a maniac. I then went back to the brig and got the eight pounds ten. I also took a little silver he had in his other trousers' pocket, and his boots, which were new; and, only I saw a man at a distance coming towards us, I should have taken his trousers." He recommenced thieving, spending the proceeds in public-houses or brothels. "I had become uncontrollably irritable, and was perpetually gambling." A furious attack on a constable led to a sentence of imprisonment for five years, and wild outbursts of violence frequently occurred while he was undergoing this sentence. Once he received fifty lashes. "The fifty lashes took no more effect on me than a shower of rain could take on a bullock." When in prison at the age of twenty a new and curious passion arose in him. He wished to be educated and to become an author, and studied Murray's "Grammar" for ten hours a day, until he was able to read and write. At the same time he became thin and melancholy, and was considered as semi-insane by the authorities, who placed him in a special yard, and endeavoured to divert his mind from study. In order to gain his own way he pretended to commit suicide by cutting his throat, injuring himself, however, more seriously than he had intended, and was more closely watched. After an ineffectual attempt to escape he was placed in solitary confinement, and again turned with ardour to his studies, even making a little progress in Greek, Latin, and French. His imaginative and reflective faculties became active, but at the same time his mind became weakened. He could no longer fix his attention on a book, and had various delusions and hallucinations. He thought that people owed him money, and also imagined constantly he was meeting old enemies; he would immediately strike them or seize them by the throat, only to find that he had injured himself against the wall. He used to wrap his hands carefully in a scarf; before he could get them loose the hallucination would vanish. At the same time "as I continued to reflect I discovered that my mind was a field which had retained everything that had ever been cast into it, and that it might be dug up with the spade of reflection. For hours together I used to sit in the little shed in my yard tracing back the events of my life. I clearly recollected all the circumstances of my birth. . . . To my astonishment I found that I was alive a considerable time before my birth, and that my body was not animated all at once, as I had thought, but that my spirit strengthened with the formation of the body. I could distinctly recollect the time when my body was not quite made, and how fearful I was lest I should be fully vivified before I was fully formed." With the termination of this sentence Part I. of these remarkable *Confessions* comes to an end. Bragg can scarcely be called an instinctive criminal; he was an occasional criminal who, in the usual way, by the contamination of prison became for a time certainly a habitual criminal. At the same time, owing to

physical and mental stress, there was a partial and incomplete development in him of two strains of insanity he had inherited.

Mr. Ardill writes in a private letter: "I regret that Parts II. and III. are out of print. They were even more interesting than Part I. Bragg is a remarkable character, a great student. Psychical research is now absorbing his attention. He hopes to reach England before the close of the year. He is now endeavouring to obtain sufficient to secure a passage, or to get a 'billet' to work his passage."

The Treatment of Habitual Criminals.

The "Mittheilungen," or "Bulletin" (it is, as usual, partly in German, partly in French), of the International Association of Criminal Law for April, 1892, is devoted to the meeting of the Association at Christiania in 1891. Perhaps the most interesting discussion was that regarding the habitual criminal and his treatment. In a report on this subject, chiefly founded on the statistics of France, Germany, and Italy, Prof. van Hamel, the well-known criminologist of Amsterdam, points out that the increase of criminality in recent years is mainly, if not solely, due to the increase of recidivism. The number of criminals is increasing, especially in France, but it is the number of punishable acts committed by each criminal which is especially increasing. In France during thirty years the number of recidivists has increased 116 per cent., the number of first offenders only 18 per cent. Similar results are found in England, Germany, Italy, and elsewhere. Van Hamel proposes that every habitual criminal—a certain number of offences being fixed to prove recidivism—should be placed for observation during a period of twelve months in a special establishment. He should then be brought before a special court established for the purpose, which would hear the evidence of doctors, officials, etc., and determine the method of treatment to be applied to him. Uppström, of Stockholm, then took up the question. He brought forward further evidence as to recidivism in various countries, and insisted on the importance of never liberating recidivists until there is reasonable assurance that they will adopt an honest life. He also dwelt on the importance of educating the will, and expressed agreement with van Hamel. A resolution in the sense of van Hamel's report was unanimously passed. It was an interesting indication that lawyers are gradually tending to fall into line with doctors where the criminal is concerned, especially when taken in connection with the recent Congress of Criminal Anthropology, when the lawyers mustered in unusual strength, and on the whole rallied to the medical side.

Studies of Criminals.

Under this heading Drs. Lydston and Talbot have recently published one of the most important contributions to criminal anthro-

pology which have come from America ("Alienist and Neurologist," Vol. xii., No. 4). It is an abridgment of a larger work they propose to publish, and deals chiefly with the cranial and maxillary development of criminals. It includes studies of eighteen living habitual criminals in the Joliet Penitentiary, chosen without reference to physical development, and is fully illustrated.

The authors do not claim to have made any fresh contribution to the subject of any importance. They regard the criminal class as "simply a part and parcel of that human flotsam and jetsam which can be so aptly termed the world of degeneracy." They find, however, that this degeneracy is less marked in America than in Europe, and the most pronounced criminal types they met with were imported European criminals.

The authors find, as the Italian and other investigators have found, that there is a tendency among criminals towards exaggeration of the natural racial type of the skull, the dolichocephalic becoming more dolichocephalic, the brachycephalic more brachycephalic. The more usual tendency among American criminals is towards brachycephaly, while in America, as in other parts of the world, there is a frequent tendency for the criminal skull to be sub-microcephalic, platycephalic, oxycephalic, and plagiocephalic. On this last characteristic, and on pronounced asymmetry in general, the writers especially insist; "the form suggests what might result if the skull were taken while soft between the hands and twisted in such a manner that all points of anatomical correspondence are thrown out of their normal relations; the result would naturally be an asymmetry in all diameters." And of the face of one of the living subjects it is said: "There is such a marked disparity and asymmetry that it has the appearance of two halves of faces of different sizes joined together, and by a bad artisan." The skulls studied by Dr. Lydston were not specially selected, but fell into his hands by accident, having been collected merely as curiosities by non-scientific persons. "It is worthy of comment," as the authors remark, "that even the remarkable series depicted in Lombroso's 'Atlas' does not present such markedly aberrant types as this comparatively small series of studies; indeed, a search among several thousand skulls would not be apt to bring to light such peculiar types of conformation as the crania which we present." This statement is fully justified by the measurements and illustrations given in this interesting paper.

Dr. Talbot is responsible for the examinations of jaws and teeth. Here, although the writers were prepared for an excess of malformations, they were surprised at their results, which, however, fully confirm those arrived at by Dr. Clouston, and stated in his "Neuroses of Development," though the classification adopted by the American authors is not quite the same. They examined 477 criminal subjects, mostly males, and including 18 negroes and

three Chinese. Most of the deformities of the jaws and teeth were confined to the upper jaw, and may be summarized by the following percentages:—Normal, 36·06; large jaw, 15·72; protrusion of lower jaw, 3·56; protrusion of upper jaw, 1·04; high vault, 14·67; V-shaped arch, 2·70; partial V-shaped arch, 16·56; semi-V, 3·98; saddle-shaped arch, 12·36; partial saddle, 19·28; small jaw, 6·29; semi-saddle, 5·03. All the (nine) women had large jaws, but of normal development. The negroes had also usually well-developed jaws.

Of the eighteen habitual criminals examined in the Joliet Penitentiary (all males) a large proportion showed marked physical degeneracy, as well as bad heredity, and it is worthy of note that not less than three of them were paranoiacs with well-marked delusions of persecution. Those who most nearly approximated the normal were "sporadic criminals" (more usually termed "occasional criminals"), of whom the most characteristic was a bright, handsome, but neurotic lad of 17, sentenced for life for a murder committed under the influence of liquor. No fewer than half of the eighteen cases were foreigners, and it was these who showed the most markedly aberrant type. Left-handedness was found to be rare—only in one per cent. among 400 criminals in the Joliet Penitentiary, and about two per cent. in the New York City Prison.

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Quarterly Meeting of the Association was held at Bethlem Hospital, London, on Thursday, November 17, the President, Dr. Baker, in the chair.

The following gentlemen were candidates for election as members of the Association, and on the ballot being taken were declared duly elected:—

Walter H. Atherstone, M.D., Surgeon Superintendent, Port Alfred Asylum, South Africa.

Hubert Carpenter Bristowe, M.D.Lond., Second Assistant Medical Officer, Somerset and Bath Asylum, Wells, Somerset.

Frederick St. John Bullen, M.R.C.S.Eng., Assistant Medical Officer, West Riding Asylum, Wakefield.

Samuel Craddock, M.R.C.S.Eng., South Hill House, Bath.

James Francis Gemmel, M.B.Glasg., Assistant Medical Officer, County Asylum, Lancaster.

James Holmes, M.D.Edin., Overdale Asylum, Whitefield, Lancashire.

W. Johnson Smyth, M.B.Edin., Army Medical Staff, Aldershot.

Charles Hubert Bond, M.B., C.M.Edin., Extra Assistant Physician, Royal Asylum, Morningside, Edinburgh.

The PRESIDENT called upon Dr. Walsley, whose name was down on the agenda, "To advert to the observation attributed to Dr. Spence, and reported in October number of the Journal as having been made at the Annual Meeting held at York, viz., 'That the opinion of those Members of the Association of great experience might be entirely swamped by the Assistant Medical Officers.'"

After Dr. WALMSLEY had spoken at some length,

Dr. WHITCOMBE moved that the meeting proceed with the next business on the agenda.

Dr. ROGERS seconded the motion.—Carried unanimously (applause.)

ADJOURNED DISCUSSION ON DR. SAVAGE'S PAPER ON "INFLUENZA AND THE NEUROSES."

(See Original Articles, Journal, July, 1892).

The PRESIDENT—All those who heard Dr. Savage's interesting paper on influenza will be glad to have the matter further discussed, and to hear the remarks of those members who have not had the opportunity of expressing their views. We must all have been more and more impressed with the difficulty of the whole subject of influenza and its bearing upon people who have passed through it. Just before coming to London I had to call and inquire after a very valued member of our profession, who was suffering from the after-effects of influenza, and whose condition was an exceedingly anxious one, and I am sure we must all of us lately have had experience of the after-effects of this disorder.

Dr. SAVAGE—I will read the results that have been arrived at by Dr. Leledy, whose great experience coincides exactly with my own. He says—

Influenza, like other fevers, may set up psychoses. Insanity may come on at various periods of the disease. Influenza may start any form of insanity. No specific symptoms result from influenza. The rôle of the influenza varies in the production of insanity. It may be a predisposing or an exciting cause. In all cases in which insanity is developed there has been noted some acquired or inherent neurotic predisposition. The insanity which follows influenza probably depends upon altered brain nutrition, possibly toxic. The onset of insanity is often sudden and bearing no relationship to the severity of influenza. The curability of the psychoses depending upon influenza depends as a general rule on special conditions. The insane appear to be less disposed to the attacks of the disease than the sane. Rarely influenza has relieved or cured existing psychoses. The insane may have mental remission during an attack of influenza. There is no special indication in the treatment of psychoses depending on influenza. Influenza has led to crimes and to medico-legal issues.

Mr. RICHARDS—I can bear out the substance of what Dr. Savage has just now read, from the fact that the insane, as a rule, when stricken with influenza do not have their mental disease decreased or exaggerated. When I was superintendent of the Female Department of the Hanwell Asylum, numbering over 1,100 patients, during the first epidemic of influenza a very large number of the patients suffered, very nearly one-third, and I cannot remember one single instance in which their mental disease was either decreased or exaggerated. At the same time amongst the members of the staff influenza was very rife, and in several of the nurses I noticed that it had, perhaps, a more than usually depressing effect upon them. Many of them became extremely melancholy, and, in fact, had not the disease run a very short course with them, I am afraid some serious mental symptoms might have developed. As regards the patients themselves, in cases of recurrent mania, or melancholia, where the patients were fairly well and were in the period of quiescence when the disease overtook them, it did not bring on an attack of their malady. With regard to mental diseases and obscure forms of nervous diseases being developed after influenza, I think we must take it with some reservation that these neurotic cases are caused by the influenza. For some time past, ever since the first and second epidemics of influenza, it has become a very fashionable complaint. Patients have said that they have had three, four, or five attacks, and all sorts of ailments have contributed to it. Consequently, if there was any nerve disease, either insanity or neurotic affection, the friends of the patient immediately attributed that to the influenza. I think, therefore, such statements must be received with considerable doubt. I would, in conclusion, confirm what Dr. Savage has said, that influenza does not increase insanity or bring back a recurrent attack of insanity in the insane.

Dr. WARD—I should like to ask whether it has been found generally in the asylums which have been visited by more than one outbreak of influenza that

patients who were attacked with the disease in the first outbreak suffered in the second outbreak as much as others who had not had it before. Though the number of patients with whom I have to deal is small, still, so far as my experience goes, I found that the disease was not generally taken the second time. We had two outbreaks, one in 1890 and the other in the beginning of this year, and scarcely any of the patients who had had influenza in the first outbreak had it in the second. The attacks were confined in both cases chiefly to patients on the ladies' side, and they occurred in particular wards, without one being able to decide that there was any decided infection, because they all occurred so very nearly together. Again, I quite agree with Mr. Richards with regard to there being no material change in the mental condition of any of the patients who were attacked. I think some of them were, perhaps, a little better and more amenable to treatment during the attack, and afterwards perhaps some of them, for a time, until they recovered their usual bodily condition, were a little worse. I found generally that the influenza amongst the insane, with few exceptions, was almost entirely of the bronchitic type, whereas, more particularly amongst the male attendants, who had it much more severely than the females, the disease exhibited the more specific typical nervous forms. I should like very much to know whether it has been found in other asylums that any immunity was given by one attack.

Dr. WHITE—In answer to Dr. Ward, I may say we had four distinct outbreaks at my asylum. The last outbreak consisted of nine patients, all occurring at one time last July. None of those patients had previously had influenza. It was of the distinct broncho-pneumonic type. The first outbreak was largely limited to the staff rather than to the patients, and I undoubtedly traced it as introduced from without. All the cases were isolated in the cottage hospital, and in some instances the people communicating with the hospital contracted the disease. I formed the opinion, from the first epidemic of 1891, that it was distinctly infectious. I have observed in our admissions of this year a larger proportion of general paralytics than it has ever fallen to my lot to notice, and in very many of those cases there is a distinct history of influenza, contracted some months previously, and in most cases of a severe type. I should like to know the opinion of other medical attendants with regard to the association of influenza with insanity, more especially with general paralysis. Of course, it may take a year or more yet before we shall have the full explanation of the association of influenza and general paralysis, but it is sufficiently interesting to collect some statistics on the subject.

Dr. MURRAY LINDSAY—We had two outbreaks of influenza, one very severe, and one not so severe. I cannot remember one single case of those attacked the second year that had previously had influenza. They were all cases of first attack. In the first outbreak the patients were largely attacked as well as the attendants. As I have said, the second outbreak was much less severe, and in no case had a patient or a member of the staff who was affected had a previous attack. Dr. Savage says that there is no connection with influenza and any specific form of mental disease. That may be so, but I think from the nature of influenza that one would probably find on investigation that as a depressant disease it is more frequently followed by melancholia. I have lately seen a professional brother who had a very severe attack of bronchitis followed by pneumonia, and this has been followed by melancholia of a very unfavourable type, his delusions being fear and suspicion of a very fixed and persistent nature, and the case is a very serious one with regard to recovery. I think if an investigation were instituted, it might be found that when insanity has supervened upon an attack of influenza melancholia was the most frequent form.

Dr. THOMPSON—I think we are wandering from the point. The principle adopted by Dr. Savage in his paper was this, that influenza had a distinct bearing on the amount of insanity produced, that is to say, that it was a direct cause in the production of insanity. I said a few words at the former meeting and I have only to repeat them now, that if that had been so we have un-

doubtedly had sufficient time and opportunity to see whether the admission rates of the English and Scotch County Asylums have visibly increased. From the perusal of the Blue Books I do not think they have. Dr. Savage is now altogether outside asylums. He has patients in his general practice, and he sees the matter from a different standpoint from what we do. He gets cases of insanity in persons who have suffered from influenza, and that he says is the cause. We no doubt get patients suffering from mental disorder who happen to have had influenza, but I hold that we have no right to assume that this influenza, which has been so widespread, so universal, is a direct or a special cause of insanity, or else we should have found a direct increase in the admissions, unless it may be supposed that all other exciting causes of insanity were suddenly stopped, which is very improbable. I repeat the protest I made at the last meeting, that we should be careful before we definitely assign influenza as an important cause in insanity.

Dr. MACDONALD—I am very glad that Dr. Thompson has raised the question as to whether or not the discussion is going to embrace the whole field of nerve troubles following influenza, or whether it is going to deal with Dr. Savage's paper, namely, that influenza is a very frequent cause of mental disease. The two questions are totally different. If we go into nerve troubles we may go on for six months discussing them. Everybody will have something to say, and something new. What Dr. Savage has placed before us is the simple question whether influenza is a cause of insanity more than might be expected from any specific nerve poison, as I take it influenza is. That being so, I for one cannot agree with Dr. Savage's view that influenza is a marked cause of mental disease. I have looked very carefully through our records, and out of 260 admissions I can only find two cases where I think we should in any shape or form be justified in saying that they were really due to influenza. I look upon this wonderful poison, and I speak very personally and feelingly because I had three distinct attacks, one severe and two mild, as one of those mysterious poisons which produce a state of susceptibility much more than any distinct disease. That is what I have found it in my own personal experience, and in my own experience at the head of an asylum, and also in our neighbourhood, talking the matter over with general practitioners, namely, that many of the patients were rendered much more liable to the influence of ordinary causes after an attack of influenza than they were before. That bears out what Dr. Savage said, that it did act as a wonderful igniter, so to speak, of disease. But surely, just because that is so, we are not to infer that it was the cause of the disease, which has, perhaps, been caused by the other ordinary causes at work. I had two distinct cases, the only two I had, one of a young boy of 16, who developed the symptoms during the attack, and I think it might fairly be said that they were caused by the excessively high fever and the poison. The other was the case of a young married woman who, I found afterwards, had a very strong hereditary predisposition to insanity, and who, during the attack, had also a great deal of mental worry and trouble. I am inclined to think, though she had influenza, influenza was not so much the cause of the disease as her other trouble. It certainly paved the way, but it did no more. At the last meeting, when this discussion commenced, one member made use of the phrase "*post-influenzal insanity*." I must take exception to this coining new forms of mental disease. I know no such disease as "*post-influenzal insanity*." Just because a few symptoms of various forms may appear after an attack, surely we are not justified in giving it that distinctive name. If so, I think we might begin with "*post-prandial insanity*" after this meeting (laughter). So I differ from Dr. Savage in this respect, and I think if the discussion could be confined to this one fact of mental disease following influenza, and the individual experience of superintendents, we should gain much more than by travelling over the wide field of nerve troubles following the disease.

Dr. WEATHERLY—As a very isolated proof of what Mr. Richard says, only

one patient had been admitted in my asylum with the causation of insanity put down to influenza, and that individual case was a case of general paralysis undoubtedly caused by syphilis and addiction to liquor quite independent of influenza, although influenza followed.

Dr. WHITCOMBE—In our City Asylum we had two outbreaks of influenza, and personally I had an attack each time, the second being much worse than the first. During our first attack at Birmingham in the winter we had a large number of patients and officers who were affected, but the attack was very slight and passed off without any deaths; but in the second attack the disease raised our death rate to over 20 per cent. It was of a very virulent nature. I was down six weeks with it, and the attack was very severe. But so far as to the admissions as the result of influenza, I have only had during the two years one single instance in which insanity was said to be due to it, and that was the case of a young woman, I think a barmaid in a public-house, who was sent to the asylum because she jumped through the bedroom window in a state of delirium. That is the only instance in which I have found out that influenza has preceded an attack, and I may say during these two years our admission rate has been very much larger than previously. This year we have had nearly 400 admissions, and last year about 300, but amongst the whole there was not a single instance ascribed to influenza.

Dr. BOWER—I think the difference of opinion that seems to exist between superintendents of asylums and Dr. Savage may be accounted for in this way. Undoubtedly influenza has attacked the upper and educated classes in far greater proportions than the poorer classes, especially at first. We have to deal with the poorer classes, and Dr. Savage has to deal with outside patients in the better classes. Mine is a small asylum, but practically my experience agrees with his. We had three epidemics. In the first nearly every patient suffered, and but very few attendants. In the other two outbreaks no patients suffered and only a very few of the attendants. Of the attendants who had it on the first occasion I can remember three who had two attacks afterwards, and as far as I was concerned I found that there was no immunity. The spread of the disease in the first case did not seem at all to be from contact; a case arose here and there in the asylum, and almost all the patients were attacked within about a week. Unlike two previous speakers, I have had a good many cases where the cause was attributed to influenza. One case of general paralysis was in precisely the same condition that Dr. Weatherly spoke of. In two cases of melancholia I think I absolutely eliminated every other possible cause. We all know that to get at the exact cause of insanity is very difficult, especially amongst the upper classes, who try to conceal any hereditary taint.

Dr. BOXVILLE FOX—First of all, with regard to the immunity of patients already insane, in our community we find that extremely marked. We had two visitations of the epidemic, and in the last visitation no female servant of the establishment escaped having very distinct influenza, but on neither occasion did any patient have anything approaching an influenza attack, although there were a considerable proportion of young patients who ought, by age, to have been susceptible when exposed to it. With regard to the increase of insanity by influenza, I have seen (though I have seen no insane patient with influenza) a good many patients who have become insane from influenza, and that not because influenza was assigned as the cause by their relatives, but because after all other possible causes had been considered and eliminated there seemed to be no other cause. Of course, we all know *post hoc* is not *propter hoc*, and in these particular matters I do not think I was deceived, and I cannot but think there has been, among some classes at all events—I am of course speaking from what I have seen—a considerable increase of insanity due to influenza. I am bound to confess that with regard to causation I cannot go as far as Dr. Savage, and although it has not been my experience to find that the patient's friends are quite so deceptive as some have found them, I cannot say I have found that every case of insanity produced by influenza has shown

hereditary taint. I will ask Dr. Savage, and I will ask you, do you not think there is something in the influenza poison that is especially obnoxious to the nervous system, not only with reference to that part which presides over our thoughts and other mental functions, but as regards the spinal column and the peripheral nerves—through every part of them—and if this is so, and I think that we shall all admit that we have in cases of peripheral neuritis and disturbances of various organs over whose functions the spinal cord exercises great influence, an effect marked from influenza, what is more natural than that you should go a step higher and expect to find that the brain should be disturbed, and its functions disordered, and therefore that it is not at all a surprising thing that influenza should increase the amount of insanity? I have had some personal experience of influenza myself in two very severe attacks. A former speaker euphemistically described his condition as one of "susceptibility" afterwards; I can only describe mine as one of the deepest and profoundest depression, and although I hope it stopped within the boundaries of sanity, I believe my nervous system was undoubtedly affected for the time being by the poison taken into my frame. But there are two questions, one of which has not been touched upon at all, and the other only slightly alluded to, and that is the form insanity attributed to influenza takes. I have not had the fortune to see any general paralytics. The larger number of cases I have seen have undoubtedly been melancholic, though some were maniacal. There has been one point very characteristic of most cases, and that was that the results were most favourable and that before long they appeared to make good recovery. As to the result of the treatment under which patients attacked by influenza have been placed, whether they are sane or insane patients, whether I have found that the use of tonics, such as strychnine and quinine, has done good or what other treatment has been adopted, I can only say that in one or two cases of mania I saw a very great practical improvement from the use of that remedy which is vaunted by some of us as having all the charm of the wand of the magician—I mean hydrobromate of hyosine.

Dr. CONOLLY NORMAN—I may perhaps be allowed to give you my experience in the Dublin Asylum. There was an outbreak throughout the whole district, and it is extremely hard to say how many of our admissions were medically due to the disease. We had the first outbreak in the winter of 1889-1890, and then all the superior officers of the asylum were attacked, most of the servants, and a considerable number of the patients. It occurred again in the middle of 1890-91, and on that occasion fewer of the officers were attacked and not quite so many of the patients. It occurred again in the spring of this year and was chiefly confined to the patients, though not solely, and some of the servants again had it. The type was chiefly of the broncho-pneumonic variety, and many of our cases developed pneumonia. There were a very large number of deaths from that cause. There was not only a great prevalence of pneumonia, but also of pericarditis, and many cases were complicated with pleural effusion. The staff were attacked most particularly in the first epidemic, and many were certainly attacked twice. Some patients passed through two attacks in the first two years and died in an attack in the third. I am, perhaps, less capable of hunting out cases of insanity than other people, but from my experience I have scarcely been able to satisfy myself that any admission was due to influenza. Certainly it was attributed to it in a great number of cases, but nearly everybody in the City of Dublin was attacked in the earlier epidemic. Of course, like a great many other medical superintendents, and I think like most of my Irish brethren, I have had to record that of late years the number of cases of melancholia admitted to asylums has been greatly on the increase, but whether that is due to the depressing effects of influenza upon our *clientèle* I am not prepared to say.

Dr. SOUTAR—Several speakers have held that influenza has apparently little to do with the introduction of insanity. Of course influenza as the cause of insanity would be an exceptional one. There seems to me a co-operation of

causes before the attack. I have been waiting to hear from those gentlemen who have had a large number of patients under their care some statistics which will show an analysis of the causes which have produced the attack in those cases in which influenza was described as one. I can only speak of a limited number of cases. We have only had ten cases in Mr. Bond's house of insane patients in which influenza has been described by the friends as the cause of the attack. On an analysis of those cases I found that out of ten, five had had a strong hereditary tendency. Those five were between the ages of 20 and 23, exactly the time when an attack of insanity very often occurs, where there has been a strong predisposition. But apart from influenza and to hereditary tendency, there seems to have been nothing in the circumstances of their life to produce an attack of insanity. In those cases the hereditary tendency would be sure to be looked upon as a producing cause, and I think we have hardly any right to reject influenza as one of the principal causes in producing an attack. Of the other cases in which influenza was described as the cause of attack, certain evidences of mental disorder were observed to have taken place previous to the attack of influenza, but they advanced much more rapidly after the patient was so affected, so that here we are justified in looking upon influenza as having a distinct influence in developing an attack, which, without influenza, might never have come to a head or have required hospital treatment. One case seemed to be absolutely a case induced by influenza. It was that of a lady who had had several attacks of what was called "delirium," every time she had a feverish cold or almost any illness raising the temperature in the slightest degree. During the influenza she had an attack of mania. This was the only one in all the ten cases in which the maniacal form of mental disease was present. All the other cases were melancholic cases, and the great majority of cases were in the habit of rubbing their skin as if there was some sense of irritation. All the young cases speedily recovered, and no special form of treatment was required other than is usual in ordinary cases of melancholia. Some of the other cases seemed as if they were going to hang on. The delusions were rather persistent, and the recovery was very gradual. The point is that my examination of these different cases brings out, as far as I understand the debate, the result that influenza, while not a very great cause in inducing insanity, is undoubtedly an influential contributory cause.

Dr. HICKS—I can scarcely agree that there has been actually no increase of insanity from the effects of influenza. We meet with such cases, certainly, in private practice and in consultation. It seems to me that influenza has been an active cause in producing insanity of late years. We have in influenza very much that which we have in puerperal fever—an actually exciting cause in a susceptible person, and it is possible that some other cause would have produced a similar number of insane cases as we have now from this more active cause. It has started the case more rapidly, and that really seems to be the reason why, in private practice, we have met with so many persons who have had attacks of insanity produced by influenza. An immense number of these cases have no doubt recovered rapidly. They have been treated at home, and have really undergone an amount of medical treatment which has been the means, as it were, of relieving the attack. The patient has recovered, but the patient has, undoubtedly, passed through an acute attack of mania for the time being, as in puerperal fever. I think this shows that there has been a wave passing over the country producing an increase of insanity, that is, that a larger number of persons pass through attacks of insanity, and this may tend to explain the diverse opinions that are expressed on the subject.

Dr. SAVAGE (in reply)—I am very glad to find there is such a very distinct difference in our observations; it shows it is worth discussing and considering. Mr. Richards did not quite understand what my contention was. I personally have not found many cases in which mental symptoms were modified by influenza. I think one point upon which we might enlarge at some future time is whether other forms of neurosis have been modified by influenza. For instance, a person

has been subject to megrims; those megrims have stopped for some considerable time after an attack of influenza. People who had nervous twitchings about the face, after an attack of influenza no longer had it. So with recurring spasmodic asthma, there has been an attack of influenza, and for the time and for some time afterwards the patient is free from the asthma. In fact, I have seen certain modifications of neurosis caused by influenza, and in a few cases, although I have not met them myself, one has heard of persons suffering even from insanity, the symptoms of which have been modified for a time. Undoubtedly some patients have had attacks of insanity as a result of or following influenza. I have seen several cases in which a neurosis has followed influenza, and the patient afterwards has had a second attack following the same cause and has died. I have also, as Dr. White said, seen a case of general paralysis following on influenza, and in one case there was no alcohol and no syphilis. I have seen every form of mental disease following influenza. I have seen more cases suffering from melancholia than any other form. Then as to there not being an increased number of cases of insanity, I do not think we are quite in a position to judge of that yet. I will give two or three reasons against our summing up too quickly upon that point. The patients who have suffered to a great extent have been among the upper classes, and a very great number of these cases have been cases of comparatively easily managed melancholia. There is another very important element. The number of suicides that have occurred after influenza has been very considerable, and I have heard from half-a-dozen medical men who had influenza, that seeing what they passed through it was a wonder that they had not committed suicide. Dr. Macdonald has seen very few cases. Well, all I can say is that is a pity. At the same time I can only say other people have seen them. I do not know how it is that those who are connected with large asylums have not seen so many cases, but the same thing holds good of syphilis. In consulting practice you see general paralytics with a distinct history of syphilis given at once; from the large asylums the superintendents come and say their cases of general paralysis have not a history of syphilis. It is merely another example of differing in observation. Dr. Weatherly has seen one case in which syphilis undoubtedly had played some part in the development of general paralysis, as well as influenza. Dr. Whitcombe, again, has only had one case. Dr. Fox is inclined to think that there is sufficient evidence that it has a toxic nerve influence, and if it be a toxine, whether it be called *grippe-toxine* or some other toxine, it prefers to attack the nervous system. I have seen every form of nervous disorder follow distinctly and clearly attacks of influenza. I have seen epileptic fits, and also diabetes. One has met with sleeplessness, one of the common symptoms of all forms of mental disorder; with intense depression and delirium; as well as with varieties of neuralgia; one has met with crises of an especially nervous type, and if one of these nervous symptoms almost certainly depends upon influenza poison it seems to me a very extraordinary thing that these symptoms should not pass over the line of what we call insanity. Of course, I was not a father, nor hardly a god-father, to this idea of neurosis and insanity, and I must disclaim anything about "Post-influenzal insanity." The term I used in reading a paper before the Medical Society was "Influenza and Neurosis," and, therefore, one is not answerable for the term "Post-influenzal Insanity." My experience is that there is some relationship between the two, but what it is I do not know.

"PAYMENT OF PATIENTS FOR THEIR WORK."

Dr. MERCIER read the following paper. (See Original Articles).

Dr. ORANGE—I should like to confirm what Dr. Mercier has said with regard to Broadmoor. It is 21 years since I brought the system before the authorities, and like everything else which could be supported with some show of reason, it was most cordially received by the Home Office, and by them passed on to the Treasury, who have, of course, to be consulted in all these matters. Action was not very long delayed; it only required a little more explanation and elucidation.

tion. The scheme was fully explained in the annual report which I wrote for the year 1876. I had rather an unusually large number of those reports printed, to the extent of 500, which were circulated as widely as we could. That report contained also schedules and forms used to carry out the scheme. The scheme was originally sanctioned by the Lords of the Treasury as a trial. After it had been in operation for about two years the officials of the Treasury paid a visit to the asylum, with a view of ascertaining and reporting how the scheme worked. Their report was made in due time, and published in 1879. It was very satisfactory as far as we were concerned, inasmuch as it stated that the system had been attended with very good results, both as an inducement to inmates to work and as contributing to the expenses of the asylum by obtaining a considerable amount of work which could not otherwise have been done. Having left Broadmoor some years I was a little interested to hear, after the lapse of a few years, what was still to be said for it. Dr. Mercier has now told you what Dr. Nicolson reports with regard to it—that it is still as much in favour with the authorities there as it was during the time it was my lot to be at Broadmoor. (Applause.)

Dr. BOWERS—I think no one can dispute the value of Dr. Mercier's paper. No doubt his proposal is open to considerable development. He suggested "jam," but there is no doubt the rewards of toil might also be utilized for playing "poker" and what not. ["Why not?"] I think anything which will help to get our patients to work is of very great importance, and that some little payment should be made in all asylums. I was rather disappointed that Dr. Mercier was not able to give some hints as to payments and inducements to be offered to patients in private asylums. We cannot offer extra beer or tobacco, because practically they have as much of all those sort of things as they want, or certainly as is good for them. Perhaps Dr. Mercier might mention some of the things he finds useful. I have had considerable experience in employing patients in the upper classes with a moderate amount of success, but still I have some refractory patients.

Dr. SPENCE—As superintendent of a County Asylum I desire to say that I do not think anything troubles us much more than the difficulty of paying our patients for the work they do. We give them tobacco—that is all right, but also we give them beer, and I object to that very strongly. We do give beer in the asylum over which I am superintendent, but I know there are a great many evils that I should be glad to see wiped away. I know there will be a great deal of difficulty in persuading our committees to adopt the course suggested by Dr. Mercier, and also in obtaining the assent of the Local Government Board Auditor, who would certainly surcharge any attempt to give patients money or tokens instead of beer or tobacco. Of course, these difficulties might be overcome. The paper is a very practical one, and I wish we had more of the same kind, which would be helpful to superintendents in carrying out the every-day work of asylums.

Dr. LINDSAY—Asylum authorities ought to be greatly indebted to Dr. Mercier for his paper. I will not say "practical," because I think it is impracticable. (Laughter.) It seems to me that if you are to pay patients on the one hand you should debit them on the other hand, in common fairness. If they are to be paid for their labour I see no sound reason for saying that you would pay them three halfpence when the value of the labour was one shilling. ["Board and lodging."] The more correct thing would be to credit them with labour, and debit them with board and lodging. (Laughter.) I am quite aware that payment was made at Broadmoor years ago, but on revolving the question in my own mind I came to the conclusion that theory and practice cannot always be harmonized. I very soon dismissed from my mind the practicability of the scheme. I am sure the labour of the average pauper patient would not be worth a shilling a day, and would not pay for his keep. If Dr. Mercier would take the stick by the right end, and begin by educating County Councils, their superintendents would have an easier task. At present I think it would be very

difficult for superintendents to persuade County Councils—to say nothing of the Auditor—to pay patients for their labour. Although I think it is a matter deserving the greatest consideration, I think there are very considerable difficulties connected with carrying out the scheme, because, of course, you cannot compare prisons with asylums.

Dr. MACPHERSON—There is one point that has not been mentioned, namely, that for 35 years the French asylums have paid their patients for labour done in those asylums, and I may say with most beneficial results. There is also this other point. Patients very often find on leaving asylums that they cannot get employment; they are mistrusted by employers of labour. I have over and over again seen patients who were incapacitated by attacks of insanity, and who when they left the asylum went out to find that their tools and, indeed, their surplus clothing had all been appropriated. In the French asylums each patient who works may have a small sum to his credit when he goes out to the world, and that, in addition to the help he receives from society, is a matter of very great help. In this country, of course, we all know nothing of the kind is done.

Dr. MERCIER—With reference to the payment of good class patients, and the way they were paid, I have overcome that difficulty with the greatest ease. I have paid them in money, and I do not find that they dislike it at all. As to expense, of course, if the matter is tried on a large scale it is financially successful. That is settled by the experiment already mentioned. The difficulty will be to persuade County Councils that it will be financially successful, but I submit that with the token coinage I recommend, a beginning may be made virtually without any expense at all. It simply means cutting off the tobacco and beer the working patients at present get, and giving them tokens to purchase tobacco and beer, and other things which may be purchasable also. Of course, no auditor would at present pass an actual money payment made to patients, but the auditor does not, I assume, exercise a very minute supervision over the variety of provisions. (Yes, yes.) There may be a difficulty, but what do we come into this world for but to overcome difficulties? Dr. Lindsay says the patient's work is not worth a shilling a day. If so, why pay them a shilling? I do not see that is any objection at all. The actual amount of payment does not equal the value of the patient's work. If the patient's work is not worth one shilling a day what I say is it will be very soon worth more than a shilling a day if you pay him 1½d. for it, and there you get a distinct profit of 10½d. on the transaction. I did mention the point of payment of money earned to patients on their leaving the asylum. I said I thought it was a most desirable thing to do, and I think it might easily be arranged.

SCOTTISH MEETING.

A Quarterly Meeting of the Association, Dr. Ireland in the chair, was held at Edinburgh, in the Hall of the Royal College of Physicians, 10th November, 1892. The other members present were Drs. James Cameron, Campbell Clark, Clouston, Elkins, Carlyle Johnstone, Keay, Mackenzie, Oswald, G. M. Robertson, Ronaldson, Batty Tuke, jun., Turnbull, Watson, Yellowlees, and Urquhart (Secretary). Dr. Middlemass was also present as a guest.

The minutes of the last meeting were read, approved, and signed.

Dr. IRELAND made suitable reference to the death of Dr. Aitken, and the Secretary was instructed to write to Mrs. Aitken expressing the sympathy of the members.

Microscopic slides, illustrative of recent work on cerebral anatomy and pathology, by Drs. Bevan Lewis, Goodall, J. C. Mackenzie, and Middlemass, were exhibited.

Dr. G. M. ROBERTSON then read a paper on the treatment of acute delirious mania, which will appear.

Dr. IRELAND said that he had been especially interested in Dr. Robertson's remarks on the value of artificial digestion in dealing with these cases. He always advised the young men to pay more attention to therapeutics than to pathology. They would have the favour of the public on their side, who were obstinate in the notion that medicine was really designed to cure people of their diseases rather than to study the way they died. He referred to his experience of opium and tartar emetic in the treatment of the delirium of fever, and some cases of acute mania. There was a tendency in mania to sinking, which rendered the old physicians cautious in bleeding.

Dr. RONALDSON said that he had found it in the highest degree necessary to obtain proper movement of the bowels, and had lately used glycerine enemata in preference to the more ordinary enemata, with the best possible results, only a teaspoonful of glycerine being necessary. If hæmorrhoids existed they were likewise benefited by this treatment.

Dr. CAMPBELL CLARK spoke of the necessity of diagnosing acute delirious mania from typhoid fever. In his practice he had found several cases of typhoid simulating acute delirious mania in every way, and at least one of these cases had been proved by post-mortem and microscopic examination to be typhoid. He laid special stress upon the liability of puerperal patients to specific diseases. There could be no doubt that dietetics were most important, and he confirmed Dr. Robertson's experience in regard to the benefits to be derived from the use of digested food. In order to avoid any mistakes in the preparation of peptonized milk he ordered half-a-pint to be boiled, then half-a-pint of cold milk to be added, by which method the temperature for peptonizing was obtained without further trouble. In case of a difficulty of feeding by the mouth he used zymized suppositories of meat and milk. He confirmed what Dr. Ronaldson had said about glycerine suppositories, and recommended morphia suppositories as an effective and safe manner of treating peripheral irritations. Although there can be no doubt that sulphonal obtains a high place in every-day practice, in these cases he preferred hyoscine.

Dr. MACKENZIE briefly described a fatal case of acute delirious mania, which was characterized by extreme exhaustion, high pulse, sighing respiration, and nearly abolished reflexes of the eyes. He injected $\frac{1}{100}$ part of a grain of strophanthin with 30 minims of brandy subcutaneously, and hot milk was administered by the stomach tube. At first the patient appeared to rally, but in a few hours she died, with a maximum temperature of 109° . The strophanthin was given with the idea of increasing the cardiac systole, but its effects were evidently transient. At the post-mortem examination intense compression of the brain and hyperæmia, especially in the cerebellum, were the chief features. He believed that alcohol should be more frequently used to allay excitement.

Dr. BATTY TUKE, jun., referred to two successful cases in which he had bled to the extent of 10 to 12 oz., both being young and strong men. He could not corroborate what had been said in favour of sulphonal. He preferred to create counter irritation on the surface of the chest and back with turpentine, or a blister or large mustard plaisters. This, along with the use of hot baths, he had found in many cases procure sleep when hypnotics failed.

Dr. OSWALD spoke of the value of paraldehyde, combined with bromide of potassium, in obtaining sleep in these acute excited states. The addition of bromide had this advantage, that it obviated the excitement that was apt to occur as an after-effect of paraldehyde. He considered that the free action of the skin was only secondary to the free action of the bowels in allaying irritation and excitement and inducing sleep. Enemata containing turpentine were in his experience valuable, and he recognized the importance of maintaining the alimentary canal in as aseptic a state as possible. A case diagnosed before admission into Gartnavel as one of mania was shown afterwards to be really one of typhoid fever.

Dr. CARLYLE JOHNSTONE said that he would not again refer at length to the value of sulphonal in these cases, but while he regretted that it remains necessary for us to treat symptoms, there was no doubt in his mind that in sulphonal we possessed a most valuable drug.

Dr. CLOUSTON referred to the difficulty of classifying cases of mental disease. He would ask if acute delirious mania were really a distinct disease from acute mania? He believed that there was no real distinction between the two conditions, although some authors were satisfied that such existed. Dr. Clouston compared these cases of acute delirious mania with some cases of alcoholism dying with very similar symptoms. There can be no doubt that certain cases of epilepsy, and also general paralysis, pass into a similar state, and he had seen puerperal, lactational, and even cases of mental shock exhibiting very similar symptoms. He would urge that different pathological conditions should be ascertained before mental diseases should be so divided, and it is a question if such exists in regard to the cases now under review. It must be kept in mind that in five cases of delirious mania out of six the disease began and ended with ordinary mania. He sometimes asked himself if we should not allow acute delirious mania to run its course without using soporific drugs, just as we did the delirium of typhoid fever. The microscopic sections (prepared by Dr. Middlemass) placed on the table to illustrate Dr. Robertson's paper showed the extreme degeneration of the nerve cells to be found in some cases of this kind. Dr. Clouston was hopeful that even such degenerative changes might be curable, and that the recuperative power might build up nerve cell contents, even if the organic change had advanced to a similar stage of what has occurred in this particular case. This case had deeply impressed him, for if a really "curable" case could have such advanced cortical cell degeneration it gave new hope where men were hopeless at present. Looking at those cells, they were more degenerated and changed than in early general paralysis. He would emphasize the fact that up till the last the prognosis in Dr. Robertson's case had remained good. There was apparently no reason why the patient should not have recovered until it was evident that death was very near at hand. Replying to Dr. Ireland, Dr. Clouston could not say that the variety of acute mania called delirious mania ran a definite course like an infectious fever; but in some cases the course of the symptoms was fairly certain. As a matter of fact they expected that these patients would recover within three months if they recovered at all.

Dr. URQUHART agreed with Dr. Clouston in believing that acute delirious mania or typho-mania was not a distinct disease, but he held that it was a convenient name for these severe cases which from time to time occur in asylum practice. On looking over the records of Murray's Asylum he found that only one case of acute delirious mania had occurred out of four hundred, and that would seem to be the usual proportion. That case did recover after an extremely severe attack, but the patient had relapsed two or three times in the intervening ten years, and the subsequent attacks were not characterized by the very severe symptoms of the original seizure. Dr. Urquhart referred to the benefits of the wet-pack, especially when the skin is dry and harsh, and the necessity for the treatment of the urgent symptoms.

Dr. TURNBULL concurred in the importance of studying the clinical history of the disease. Certain forms of acute mania tended to run a definite course, just like the specific fevers, and hence the necessity of watching for the different symptoms as they arose, treating these as far as possible, and placing the patients in the best possible conditions for weathering the storm. With regard to sulphonal and hyoscine, he had found sulphonal more generally useful than the other, but had also obtained good results with hyoscine in toning down the attacks of excitement in recurrent mania.

Dr. ROBERTSON briefly replied. He said he could not agree with Dr. Clark as to the relative danger of sulphonal and hyoscine in these cases, for he was of opinion that the latter was more depressing. He also believed it to be neces-

sary to run some risk even with sulphonal in trying to stop the motor excitement when a patient was running down and exhibiting symptoms of exhaustion. He would be unwilling to adopt such remedies as hot baths and blisters.

After the conclusion of this discussion an informal conversation took place regarding asylum dietaries, which will be reported by Dr. Turnbull to the committee now engaged in considering that question.

Dr. TURNBULL moved, and it was unanimously resolved, that the Secretary should intimate to the Council at their next meeting the desire of the members then assembled to hold the spring Quarterly Meeting in Liverpool, or some convenient town in the North of England.

Dr. WATSON then exhibited and explained the plans of the Govan District Asylum now being erected, the chief feature of which was the separation of acute and sick cases in a hospital block, placed at a convenient distance from the building for chronic patients.

After the meeting the members dined as usual in the Edinburgh Hall.

THE INTERNATIONAL CONGRESS OF CRIMINAL ANTHROPOLOGY.

The third International Congress of Criminal Anthropology was held at the Palais des Académies, Brussels, from the 7th to the 14th of August. Dr. Semal very ably organized the Congress; M. Le Jeune, the Minister of Justice, presided at the opening session, while the King of Belgium attended one of the meetings and invited the Congress to meet him. Various prisons and asylums were visited, and the papers and discussions generally were of great interest. A large number of foreign Governments were officially represented at the Congress, including France, Italy, the United States, Russia, Holland, Denmark, Hungary, Switzerland, Portugal, Mexico, Brazil, China, Japan, etc., and many medical and scientific societies sent delegates. A notable feature of the meetings was the considerable number of lawyers present, and the harmonious manner in which the medical and legal elements in the Congress worked together. The prominent members of the Italian school were on this occasion absent; and although the congenital "criminal type," in a very narrow and rigid sense, is not accepted by criminal anthropologists generally, on the other hand honour was paid to Lombroso and his followers who have, indeed, created the study of criminal anthropology. While in the narrow sense of the word there is no definite and distinct "criminal type," the very frequent association of a large number of anatomical characters with criminality is now almost universally recognized. At one of the meetings of the Congress a photograph was passed round by M. Cuyllits (who argued that crime is an exclusively social phenomenon) as that of an "honest man" exhibiting a large number of the features usually associated with criminality; this "honest man," however, was recognized by Dr. Warnots as a hospital patient who had been frequently in prison. The incident was an amusing illustration of the careless manner in which evidence is sometimes brought forward in these matters.

It is impossible within the limited space at our disposal to give an account of the various papers and discussions, but some reference may be made to a few of the more important. At the first meeting Dr. Magnan, of Sainte Anne, presented his report on "Morbid Criminal Obsessions," dividing them into homicidal, kleptomaniac and kleptophobiac, pyromaniac and pyrophobiac, and sexual obsessions, giving several examples of each variety, and concluding that mental degeneration is the soil from which all, though differently coloured, emanate. Dr. Ladame, of Geneva, followed with a paper on the special "Obsession of Murder," as a division of the great class of hereditary insanity, like dipsomania or kleptomania; he divides such subjects into those whose obsessions remain

theoretic and those whose impulse leads them to murder or suicide. Dr. Garnier criticized a portion of Ladame's paper, considering that he placed side by side cases dependent on, and independent of, hereditary degeneration; the most dangerous variety is that where the impulse is sudden and immediate, without hesitation or struggle. Professor Benedikt accepted the conclusions of Magnan, Ladame, and Garnier, and thought that the victims of obsession were very numerous in prisons, especially among recidivists. He mentioned the case of a reformed thief, who became a police official and led an irreproachable life for seven years, when one day, to his immediate grief—and though he was well off—he was unable to resist the temptation to appropriate a pocket-book full of bank notes. Dr. Näcke, of Hubertusburg, considered that obsession was rare, and that its diagnosis mingled with that of epilepsy, periodic melancholia, etc. This was not, however, the opinion of most of the speakers. The Congress then passed on to the discussion of the "Functional Etiology of Crime." This subject was introduced by Dr. Dallemagne, of Brussels. He considered that the study of crime is, above all, a study of the criminals' psycho-physiology, and that there are three orders of factors to be regarded—the nutritive, the reproductive, and the intellectual—every act being the resultant of one or more of these factors. M. Cuyllits and M. Drill believed that more importance must be attached to the social factor; to this Dr. Dallemagne replied by pointing out that in Denis's diagram the curve of crime is almost parallel to the curve of the price of wheat. In the afternoon, after Mme. Pauline Tarnowsky had read a paper giving the results of her investigations on "The Organs of Sense in Criminal Women," Professor Lacassagne, of Lyons, spoke on "The Primitive Instincts of Criminals," expounding his well-known classification of criminals into the frontal, parietal, and occipital groups. Dr. Näcke was not able to accept Lacassagne's cerebral geography; and M. Cuyllits insisted on the importance of the environment. Dr. Motet followed with a paper on the "Motives of Crime in Children." A communication was then read from M. Ou-Tsong-Lien, of the Chinese Legation, regarding criminal administration in China. He pointed out that when a district had supplied no criminal for a certain period the local authorities were recompensed, crime not being regarded as a purely individual concern. M. Tarde remarked that this was a collective responsibility towards which we are tending. This was also the opinion of M. Prins, who thought that the future will bring judicial decentralization. On the following day M. Drill, of Moscow, presented a report on "The Fundamental Principles of Criminal Anthropology." Among these are, as he insisted—(1) the old principle of punishment must give place to the idea of social protection; (2) the criminal must be studied, instead of merely studying the criminal act; (3) there are two factors in crime—psycho-physical organization and external influences. Dr. Houzé expounded the conclusions of the report he had prepared, in conjunction with Dr. Warnots, on the question: "Is there an anatomically determined criminal type?" He showed that, in the strict sense, this does not exist, the so-called "criminal type" being a hybrid product composed of characters drawn from various sources, and that even if it actually existed it was only found in a very small minority of criminals. He pointed out that criminal anthropology was in no way bound up with the existence of any rigidly anatomical "criminal type." Dr. Jclgersma, of Meerenberg, then presented a report, entitled "The Physical, Intellectual, and Moral Characters of the Congenital Criminal are of Pathological Origin," and concluded that from whatever point of view we regard the instinctive criminal he is a diseased person, that criminality is as much a disease as insanity. In the discussion which followed the Abbé de Baets sought to reconcile the new anthropological school with the old classical school of jurisprudence; in the future, he declared, it would be necessary for lawyers and priests to study the facts of positive science. Subsequent speakers, generally, accepted the reconciliation of lawyers and doctors on a basis of general agreement as to the importance of anthropologic science.

On the 10th Dr. Näcke read a paper on "The Signs of Degeneration in Insane

Women, and in Criminal Women who have become Insane." He showed that among the former such signs were only wanting in about three per cent., and were rather more frequent among the latter, but he was not able to accept a criminal type in Lombroso's sense. Prof. Benedikt explained the conclusions of his report on "Criminal Suggestion and Penal Responsibility." He has no belief in the possibility of crime by suggestion. Dr. Voisin then presented a summary of his report on the same subject, in which he arrived at an opposite conclusion—that the hypnotic method is a real means of cure, and also a very dangerous incentive to crime. Dr. Bérillon also presented a report in the same sense. A discussion followed which led to no unanimous conclusions. The Germans (Mendel, Näcke, etc.) generally disputed either the criminal or therapeutic efficacy of hypnotism; the French and Belgians on the whole argued for such efficacy. On the following day M. Gauckler, Professor of Law at Caen, presented his report on the "Respective Importance of the Social and Anthropological Elements in the Determination of Penalty." He concluded that—(1) The essential function of criminal law is to prevent crime by intimidation, and that this function is conditioned by elements exclusively social; (2) A secondary but still very important function is to ensure the harmlessness of a delinquent, and this function is conditioned by anthropological data. Prof. von Liszt, from the legal side, approved M. Gauckler's conclusions. M. Prins contested the essential function of intimidation in criminal law; Prof. van Hamel, of Amsterdam, saw little difference between the point of view of the study of the individual and that of the study of society; they could not be separated; and M. Ploix remarked that even disagreement on principles did not interfere with harmony in practice. Prof. Manouvrier then presented his paper on "Preliminary Questions in the Comparative Study of Criminals and the Honest," in which he explained how it was that a commission appointed by the previous Congress to make a comparative anatomical study of criminal and honest persons had no report to offer. The difficulties in the way of strict selection and of uniformity of method were found insuperable. M. Denis, the Rector of Brussels University, then read a communication on "Criminality and the Economic Crisis." He showed diagrams indicating parallel curves of famine and criminality, and an inverse relation between marriage and the price of wheat; he regretted that since Quetelet's death the study of moral statistics had been almost abandoned. M. Tarde then presented a lengthy and very interesting report on the "Criminality of Crowds." He insisted that the morality of crowds is inferior to that of the individuals composing them. This may be true even of nations, and he instanced the English, who as a nation have acquired a reputation for perfidy, though as individuals they are to a large extent frank and loyal. Whether rural or urban, crowds are liable to *folie des grandeurs*, or to persecutory mania and to mental hallucinations. It is, however, specially among urban crowds that moral insanity is more frequent and more profound. The question of the prevention and repression of collective criminality was a very difficult one. Dr. Dexterev and Dr. Sarewski, from observations of mob psychology during the recent cholera riots in Astrakhan, did not agree with M. Tarde that mobs always had leaders. Dr. Garnier fully accepted M. Tarde's conclusions; there were always alcoholics and genuine lunatics in mobs, and these led away the others. M. Tarde admitted in his reply that a leader was not always necessary to a crowd. On the following day a communication was read in which Dr. Debierre gave the results of some anatomical researches concerning the vermian fossa, tending to disprove Lombroso's contention as to its connection with criminality. Dr. Garnier then presented an important report on "The Necessity for a Preliminary Psycho-Moral Examination of Incriminated Persons." He showed that during the five years 1886-90 no fewer than 255 persons, or about 50 per annum, were found to be insane almost immediately after judgment had been pronounced, and were thus unjustly subjected to the disgrace of condemnation. He mentioned a few of the numerous cases with which his official position brought him in contact.

Dr. Garnier was supported by Dr. Winkler, Dr. Motet, and others. Prof. van Hamel then presented his report on "The Measures Applicable to Incurable Criminals." He argued that the detention of recidivists must be indefinite, the criminal to be periodically brought before a court which would possess the power of deciding concerning his future. Prof. Thiry, who was persuaded that indefinite detention could not be avoided, was in agreement with Prof. van Hamel, but did not see the necessity of judicial intervention to prolong or interrupt detention. M. Maus, in a paper on the same subject, advocated an indefinite sentence (somewhat as at Elmira), considerable latitude being left to the prison administration to individualize the treatment. Dr. de Boeck, of Uccle, and M. Otlet, an advocate of Brussels, presented a report on "Prison-Asylums and the Penal Reforms they Involve," formulating their conclusions in the shape of an Act corresponding to those already accepted by the Parliaments of Italy and Belgium. On the last day of the Congress, after a communication from M. Terawo-Tora, the delegate of the Japanese Government, on the progress of criminal legislation in Japan, M. de Ryckere brought forward his paper on Bertillon's anthropometric system, which is shortly to be introduced into Belgium. Among other papers brought before the Congress were two by Prof. von Liszt and Prof. Benedikt on "The Applications of Criminal Anthropology," two by Dr. de Rode and Prof. Hubert on "Sexual Inversion and Legislation," arguing that before trial there should always be a medical examination in such cases, and papers by M. de Vaucheroy on "The Influence of Alcoholic Heredity on Insanity and Criminality," and Dr. Coutagne on "The Influence of Occupation on Criminality." The excellent plan was followed at the Congress of issuing *Rapports* beforehand, so that it was not necessary actually to read them at the Congress, thus allowing ample time for discussion and for the reading of shorter communications. Pending the publication of the "Actes," a fairly full account of the papers and discussions will be found in the "Archives de l'Anthropologie Criminelle" for September, the whole number being devoted to the Congress.

The next International Congress will be held at Geneva in 1896, but it is expected that there will be a special session at Chicago during the present year.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Dr. H. Sutherland read a paper on Nov. 4th on the "Prevention of Suicide in the Insane."

Statistics showed that only one case out of 222 patients who were suicidal on admission succeeded in committing the act, the remaining 221 having been prevented from doing so by the vigilance of the attendants.

The duties of the superintendent and attendants of the suicidal insane were to keep a careful and constant watch upon all medicines, plasters, and disinfectants. To keep keys, razors, knives, forks, fireirons in places of safety. To impress upon visitors the necessity of not leaving poisonous substances about, or introducing scissors or edged tools into the asylum. Attempts at hanging might be prevented by keeping out of the wards all nails, wires, ropes, sash-lines, bell-pulls, tapes and string. Patients with homicidal and suicidal delusions should not be allowed to work in the shops of the asylum, where they have knives and hammers at their command.

The site of the asylum should be chosen as far as possible from rivers, ponds, and railways.

In the asylum itself all doors should open outwards, windows should be protected, w.c.'s should close with a ball let into the door, fireplaces must be

protected by guards, taps for gas secured under lock and key, and all windows and gas jets be placed out of reach.

Patients should be watched at meals to see that they eat enough, and do not take food in a dangerous manner.

Some curious weapons were exhibited, made by suicidal patients from pieces of crinoline steel, firewood and string forming a knife, and from stones tied up in a stocking forming a hammer, and other curious inventions.

The paper concluded by a tribute of praise to the attendants, by whose devotion suicide in asylums is reduced to a minimum.

ILLENAU'S GOLDEN JUBILEE.

Since we received the "Festschrift," issued at the time of the Jubilee, which we have noticed in this Journal (p. 109), we have received from the Director, Dr. Schüle, an account of the proceedings which took place at Illenau on the 27th September, 1892.

Our space allows us only to note that the occasion was a very brilliant one. The Grand Duke and Grand Duchess of Baden honoured it by their presence. The ceremony was partly religious, partly secular. A sermon was delivered by the Chaplain. The Duke replied to a loyal speech in which he was addressed. Dr. Schüle, of course, spoke. Among other things a hymn, specially written for the Ceremony, was sung at the Service, and a special poem enlogizing the work performed at Illenau was recited during the proceedings. Altogether the enthusiasm and the tributes paid to those who had been the making of the asylum were of the warmest character, and the success was, we are glad to say, as great as it deserved to be. Congratulations in regard to the past were combined with the expression of the hope that in the future still greater heights would be reached in the treatment of the insane. We add our "Amen!"

Obituary.

THOMAS AITKEN, M.D. EDIN.

We regret to have to record the death of Dr. Aitken, of the Inverness District Asylum, one of the senior members of the Medico-Psychological Association.

Dr. Aitken was born in Dumfries, and was rocked in his cradle by the widow of the poet Burns. After attending school in Birmingham he served as assistant medical officer under the late Dr. W. A. F. Browne in the Crichton Royal Institution, and thereafter completed his medical education in Edinburgh. He graduated in 1856 and then became assistant medical officer in Durham County Asylum with Dr. R. Smith, before being appointed Superintendent of the Inverness Asylum in 1859. That institution was completed in 1863, and was designed to accommodate 300 patients. Since then it has been repeatedly enlarged, and now contains over 500. Further accommodation being urgently required, Dr. Aitken was, until the time of his sudden illness, occupied in designing a separate hospital block for the reception of acute cases. Although it was well known that for some years his health was far from being robust, and

that at times he carried on his life-work under circumstances of painful difficulty that would have daunted a less resolute man, his health had improved so much of late that Dr. Aitken's death at Baden was a shock to his many friends who had parted so recently from him in high spirits and the prospective enjoyment of a holiday in Germany.

His loss will be widely felt, not only by those with whom he was more intimately professionally connected, but also by the public in the north of Scotland. Dr. Aitken did not confine his energies to the administration of asylum affairs, but he was also a good citizen and a man of no ordinary accomplishments, both literary and scientific. He was deeply interested in archaeology and geology, and specially wrote on the Hill Forts so common in the north of Scotland. All his life long he was an eager student. His collection of books on the French Revolution was very complete; and his study of Heine, and the poetry of Keats and Wordsworth was both comprehensive and erudite. Dr. Aitken had a full knowledge of French and German, and has left many translations from works in these languages, not only from those dealing with psychiatry, but also from such poets as Heine.

Dr. Aitken did not publish any work of note in psychological medicine, although he was ever careful to keep abreast with the foremost knowledge of the time. His conscientious reports have been noticed from time to time in this Journal, and although his views did not always command assent, they were respected as the outspoken accents of sincere conviction.

A. R. U.

M. PROSPER DESPINE.

Dr. Despine, of Marseilles, died there January 16th, 1892, at the age of eighty.

He was an honorary member of the Medico-Psychological Association.

A native of Savoy, he commenced his medical studies in the Marseilles School of Medicine; he pursued and finished them in Paris, where he obtained his degree of M.D. in 1837.

Despine was *interne* at Bicêtre under Ferrus and Leuret. It was under the direction of these enlightened alienists and also by associating with fellow-students, who were themselves afterwards distinguished masters of mental science, that Despine acquired a keen taste for the study of the problems of psychology and medical philosophy. He was the author of several works of profound erudition, in which he proved himself to be a mental philosopher, and, in some respects, an able exponent of the Scotch metaphysical school. Such are his "*Psychologie naturelle ou Etude sur les facultés intellectuelles ou morales dans leur état normal, et dans leurs manifestations anormales chez les aliénés et chez les criminelles*" (1868): "*De la folie au point de vue philosophique ou plus spécialement psychologique chez le malade et chez l'homme en santé*" (ouvrage couronné par l'Institut en 1874), "*Etude scientifique du somnambulisme*" (ouvrage récompensé par la Société medico-psychologique de Paris, 1877). He also published "*La Contagion morale*" (1870), "*L'imitation ou les principes qui la déterminent*" (1871), "*Le démon alcool*" (1871), "*De l'état psychique des criminels*," "*Un cas d'hystérie aiguë chez l'homme*," etc. His last work was an interesting study on Molière, in which he studied the illustrious comedian as moralist and as philosopher. Its title was "*La Science du cœur humain*" (1884).

Dr. Despine was an honorary member of the Société Medico-Psychologique of Paris, of the Académie des Sciences, Belles Lettres et Arts of Savoy, and of the American Society of Prisons. His great age did not allow of his taking

an active part in the proceedings of these different learned bodies, but to the last moment he was interested in the questions which had been the object of his researches. He died after a short illness. Very modest, very upright in character, he was held in high esteem by all his medical brethren.

DR. PHILIPPE REY.

NURSING CERTIFICATES.

The following candidates were successful at the examination for the certificate of proficiency in nursing held in November, 1892 :—

Winson Green Asylum, Birmingham.

Males.
Yarnal, Alfred.

Females.
Holden, Bertha.

Derby Borough Asylum.

MacDonald, Helen N.

Holloway Sanatorium.

Aries, William.
Gouriet, Alfred.
Green, Edward John.
Jenkins, Lambert.
Ponsford, Henry.
Webber, John.

Barrett, Lydia.
Cowling, Clara.
D'Arey, Maud.
Greatbatch, Elizabeth Annie.
Gleeve, Kathleen.
Heraper, Elizabeth.
Hughes, Annie.
Julius, Minnie.
Pakenham, Emma Mary.

Crichton Royal Asylum, Dumfries.

McLeod, Jessie.

Kirklands Asylum, Bothwell.

Macaskill, John.

Sunningside Asylum, Montrose.

Dunbar, John.
Emslie, Robert.
Massie, John S.

Duncan, Annie.
Duncan, Christina.
Findlay, Elizabeth.
McIntosh, Elizabeth.
Middleton, Margaret.
McCall, Mary.

The next examination for this certificate will take place on Monday, the first day of May, 1893. Candidates can obtain from the Registrar a schedule, which should be filled up and signed as required, and returned to him at least four weeks before the date of the examination.

Letters of inquiry respecting this certificate should be addressed to Dr. Spence, Burntwood Asylum, near Lichfield, Staffordshire.

M.P.C. EXAMINATION.

THURSDAY, DEC. 8, 1892.

The following Candidates for the M.P.C. passed the Examination held at Bethlem Hospital, Dec. 8:—

W. Andriesen,

Frederick G. T. Fox,

W. H. R. Rivers.

Maurice Craig,

H. C. Halsted,

THE SPRING QUARTERLY MEETING.

This Meeting of the Association will be held at the Medical Institute, Liverpool, March 9, 1893.

FLETCHER BEACH,

Hon. Secretary.

Darenth, Dec. 12th, 1892.

ADDENDUM.

In the Occasional Note on "Tennyson as a Psychologist," there should have been inverted commas, from line 20, p. 65, to J. C. B. inclusive (p. 71, line 11).

In addition to Dr. Peterson's article reviewed at p. 114, we have received: "Progress in the Care of the Colonization of Epileptics," reprinted from "The Journal of Nervous and Mental Disease," August, 1892; "The Treatment of Epilepsy," reprinted from the "Buffalo Medical Journal." In the "New York Medical Journal," July 23, 1892, Dr. Peterson gives "An Outline for a Plan of an Epileptic Colony." These publications prove that the author has thoroughly studied the subject, and has determined not to allow it to fade away from the public mind.

Appointments.

BOND, C. H., M.B., C.M.Edin. appointed Clinical Assistant to the West Riding Asylum, Wakefield.

GRIFFITH, AUGUSTINE, M.B.Lond., appointed Second Assistant Medical Officer to the Nottingham Borough Asylum.

JACKSON, ARTHUR M., M.D.Oxon., M.R.C.S.Eng., appointed Senior Assistant Medical Officer to the Kent County Asylum.

JOHNSTON, T. LEONARD, L.R.C.P., L.R.C.S. L.F.P.S.G., and L.M., appointed Second Assistant Medical Officer Berkshire County Asylum.

JONES, ROBERT, M.D.(Lond.), F.R.C.S.(Eng.), Medical Superintendent of the Earlswood Asylum, appointed Medical Superintendent to the Middlesex County Asylum, Claybury.

MACKENZIE, J. C., M.B., appointed Medical Superintendent to the Northern Counties Asylum, Inverness.

MACNAUGHTON, G. W. F., M.S.Edin., appointed Third Assistant Medical Officer at the Worcester County and City Lunatic Asylum.

MATHIESON, GEORGE, M.B., C.M.Glasg., appointed Junior Resident Medical Officer to the County Asylum, Stafford.

MILLARD, R. J., M.B., Ch.M., appointed Junior Resident Medical Officer to the Hospital for the Insane, Paramatta, New South Wales.

MURDOCH, J. WM. A., M.B., appointed Medical Superintendent to the Berks County Asylum.

O'MARA, FRANCIS, L.R.C.P., L.R.C.S.I., appointed Assistant Medical Officer to the Limerick Lunatic Asylum.

ROUSE, E. R., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Third Assistant Medical Officer to the London County Asylum, Colney Hatch.

SHAW, H. G., M.R.C.S., L.R.C.P., L.M., reappointed Assistant Medical Officer to the Female Department of the London County Asylum, Colney Hatch.

WILMOTT, C. C. EARDLEY, M.B.Durh., appointed Junior Assistant Medical Officer to the Middlesex County Asylum, near Tooting.

THE JOURNAL OF MENTAL SCIENCE.

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APRIL, 1893.

VOL. XXXIX.

PART 1.—ORIGINAL ARTICLES.

*On Psychoses after Influenza.** By JULIUS ALTHAUS, M.D.,
M.R.C.P.Lond., Senior Physician to the Hospital for
Epilepsy and Paralysis, Regent's Park.

The discussion which I have been invited to open is on a subject which is new to all of us, and which may, therefore, simply on this account, claim a share of our attention. Indeed, on searching the works of Clouston, Blandford, Savage, and others, as well as the extensive periodical literature which is at our disposal in the "Journal of Mental Science," the "West Riding Asylum Reports," and similar publications in France and Germany, the subject of mental affections occurring subsequently to influenza has hardly been mentioned with a single word previous to the epidemics of that distemper which we have recently passed through. Nor is there anything to be found on this subject in the numerous books and papers descriptive of influenza which have appeared before 1890. All that has been written on mental disorders in connection with influenza previous to that date refers to the *febrile* or *initial delirium* which may occur at any time during the progress of the feverish attack, and may, indeed, precede all other symptoms, setting in sometimes before there is any rise of temperature. This initial delirium has been described as long ago as 1510 by Sauvages, and later on by Huxham, Ash, Haygarth, Gray, Smyth, Rush; more recently by Lombard, Bonnet, and Pétrequin, and during the last epidemics

* Read before the Psychological Section of the Annual Meeting of the British Medical Association, at Nottingham, July, 1892.

by Ewald,¹ Joffroy,² Gwynne,³ Creagh,⁴ Nicholson,⁵ Van Deventer,⁶ Mairet,⁷ and others. In the German Collective Investigation Report, edited by Leyden and Guttmann,⁸ no less than 276 such cases have been collated. It is, however, not this initial delirium which we have met here to consider to-day, but those better defined psychoses which are prone to occur after the feverish attack is over, during, or some time subsequently to *convalescence*.

The only remark relating to our subject which I have been able to discover previous to 1890 is one made by Sir James Crichton-Browne,⁹ who states in a valuable paper on so-called "acute dementia," published in 1874, that he has seen a chlorotic girl who had retained unimpaired intelligence until she was attacked by influenza, when she rapidly lost the use of her faculties, and became unable to think, speak, or move spontaneously. These four lines, therefore, constitute all the definite information which is extant on post-grippal psychoses previous to 1890. Sir J. Crichton-Browne has kindly informed me that the case just mentioned occurred after an attack of genuine influenza, and not a mere feverish catarrh; and that it was a case of certifiable insanity, and not mere initial delirium. The case is, therefore, of historical interest, as being the first undoubted instance of a real post-influenzal psychosis recorded in medical literature.

It is, however, not simply because the subject is new that it should claim our earnest consideration. To my thinking it should do so even more on account of its own intrinsic interest and importance, which become at once apparent, whether we look at it from a purely scientific or a more practical point of view. I believe it will be generally acknowledged that these post-grippal psychoses possess considerable scientific interest, inasmuch as they have been found to differ in many respects from other post-febrile insanities, with the special features of which we have long been more or less familiar; while on the other hand the comparatively large number of cases which have been met with, in general as well as in consulting and asylum practice, greatly exceeding that of psychoses occurring after other fevers, imparts to the subject naturally a higher degree of practical importance than that of some analogous conditions which are so rare that they may be considered as curiosities of medical practice and literature. Such is, for instance, the case with psychoses after measles, of which, as far as I am aware, altogether only four cases have been reported.

The literature of psychoses following influenza has since the recent epidemics become very large. Amongst the authors who have written on this subject I would particularly mention Savage,¹⁰ Clouston,¹¹ Hack Tuke,¹² Flint,¹³ Harrington,¹⁴ Paine,¹⁵ Richardson,¹⁶ Kraepelin,¹⁷ Jutrosinski,¹⁸ Pick,¹⁹ Ahrens,²⁰ Bartels,²¹ Becker,²² Mucha,²³ Solbrig,²⁴ Fehr,²⁵ Schmitz,²⁶ Weynerowski,²⁷ Mispelbaum,²⁸ v. Holst,²⁹ Krypiakiewicz,³⁰ Müller,³¹ Munter,³² Ladame,³³ Bidon,³⁴ Leledy,³⁵ Voisin,³⁶ Mairat,⁷ Morrelli,³⁷ Frigerio,³⁸ Christiani,³⁹ Lojacono,⁴⁰ Cantarano,⁴¹ Hoge,⁴² Ayer,⁴³ and myself.⁴⁴

In approaching the study of psychoses after influenza it occurred to me that it might be useful to consider these affections in connection with other better-known post-febrile insanities. Mental diseases coming on after rheumatic fever, pneumonia, intermittens, the acute exanthemata, erysipelas, cholera, and whooping cough have, indeed, attracted the attention of numerous observers, more especially during the last forty years, in this country, as well as in Germany and France, and I need only remind you of the writings of Russell, Greenfield, Handfield Jones, Wilson Fox, Murchison, Clouston, Blandford, Savage, Tuke, Hermann Weber, Scholz, Jolly, Kraepelin, Boileau, Berthier, Christian, and others who have done so much for the elucidation of this subject. Indeed, the psychoses following rheumatic and intermittent fever were already known to Sydenham, Boerhave, Van Swieten, Musgrave, Hofmann, the elder Monro, and other physicians of the last century. In order to illustrate certain points in the natural history of all post-febrile psychoses, I have constructed a table based chiefly on Kraepelin's⁴⁵ collection of cases, on which are shown :—

- 1st. The number of well-observed cases which have been utilized ;
- 2nd. The influence of sex, age, and general and special predisposition ;
- 3rd. The duration of these affections ; and
- 4th. The eventual result, whether cured, uncured, or fatal.

I shall have frequent occasion to refer to this table in the course of my address, and now proceed to submit to you the more important points connected with our subject, which are still to some extent *sub judice*, and on which I would invite discussion by the eminent experts here present.

TABLE showing the number of Cases, Influence of Sex, Age, and Predisposition, Duration and Result in all Post-Febrile Psychoses.

Acute Infectious Diseases.	Number of cases utilized.	Influence of Sex.		Of Age.		Of Predisposition.		Duration.				Result.		
		Male.	Female.	Up to 30.	Above 30.	General.	Alcohol.	One week.	One month.	Twelve months.	Years.	Cured.	Un-cured.	Died.
Rheumatic Fever ...	96	60.3	39.7	77	23	30	?	16	33	46	5	93.6	0	6.4
Pneumonia ...	43	82	18	40	60	41.4	16	70.7	19.5	9.8	0	89.5	0	10.5
Intermittent Fever ...	39	76	24	48	£2	31	?	24	48	28	0	100	0	0
Variola ...	41	60.7	39.3	57.1	42.9	10.7	?	71.4	14.3	14.3	0	80	0	20
Scarlatina ...	16	60	40	58	42	19	?	87	0	0	0	87	0	13
Erysipelas ...	11	73	27	50	50	54	?	63	37			80	0	20
Typhoid Fever...	87	56.5	43.5	70.5	29.5	34.5	?	17	24	21	38	71.8	20.5	7.7
Cholera ...	19	68.4	31.6	37.5	62.5	21	?	18.8	56.2	25	0	100	0	0
Influenza ...	113	56.4	43.6	39	61	72.7	10.8	12.5	32.5	55	0	56.6	5.8	7.6

1. *Are psychoses after influenza more frequent than those which occur after other fevers?*

In one sense this question has already been answered in the affirmative. There is no doubt that the cases which have been recorded by various authors are absolutely much more numerous than those which have been described as following any other acute diseases. On my table the number given is 113, the next highest numbers being 96 for rheumatic fever, and 87 for typhoid fever. That number (113), however, does not approximately represent the whole of the cases which have been mentioned or cursorily described by authors, for I have only selected those which have been related with full detail. Thus the table does not include one of the 170 cases of post-grippal psychoses which have been at the disposal of the compilers of the German Collective Investigation Report,⁸ and which, I regret to say, do not appear to me to have been as much utilized as they might have been.

Individual observers have seen many more cases of post-grippal psychoses during the last year or two than of other post-febrile insanities during a lifetime. Thus Savage¹⁰ has reported upwards of fifty cases, Leledy,³⁵ twenty-two, Jutrosinski,¹⁸ twenty, Hack Tuke,¹² eighteen, van Deventer,⁶ eleven (in addition to twenty cases of initial delirium), Mairret,⁷ eleven (in addition to six cases of initial delirium), myself,⁴⁴ nine, six of which I have reported, and many others a somewhat smaller number—all within a comparatively short period. Clouston,¹¹ indeed, states broadly that the poison of influenza destroyed the cortical energy to a much larger extent than any of the continued fevers or zymotics—nay, that its effects on the mental condition of Europe during the years of its prevalence far exceeded in destructive powers all those diseases put together. It left the mental tone of Europe lower by some degrees than it found it, and no epidemic of any disease on record has had such mental after-pains. There is thus good evidence to show that the absolute number of cases of these psychoses greatly exceeds that of other post-febrile insanities. But is this frequency also relatively greater—that is, when we compare it with the extremely large number of cases of the parent affection which have occurred? It is this latter question which I would submit more particularly to your consideration. Influenza has recently assumed the character of a pandemic rather than that of an epidemic, and an element of doubt is thus introduced which it would be desirable to clear up. Jastrowitz, who has drawn up the report on 170 cases in

the German Collective Investigation Report,⁸ is of opinion that psychoses are not only absolutely but also relatively more frequent after influenza than after other fevers, and from the data which are at my disposal I have arrived at the conclusion that the only other acute disease which can at all compare with influenza in this respect is typhoid fever.

2. *What is the influence of sex and age in the causation of these affections?*

Kirn⁴⁶ states that females are more liable to them than males, and Jutrosinski¹⁸ thinks that both sexes are about equally prone to them. A glance at my table, however, shows the male sex to be throughout more liable to post-febrile psychoses than the female. This difference is most marked for pneumonia, viz., 82 against 18; and least so for typhoid fever, viz., 56 against 44. For influenza the numbers are 56·4 and 43·6.

The influence of *age* on the production of post-febrile psychoses does not seem to be so uniform as that of sex, for although persons below thirty years of age appear to be on the whole more liable to them than those upwards of thirty, there are exceptions to this rule. For influenza the numbers are 39 for the younger and 61 for the older set of persons. I have compared the prevalence of post-grippal psychoses in the several decades of life, and find the three decades between 21 and 50 years of age to be more prone to them than the five decades at the two extremities of life (63 to 37). We find here a close analogy to what happens in cerebral syphilis leading to mental affections, which are also much more frequent between 20 and 50 years of age than at any other time of life; while, on the other hand, after rheumatic fever, small-pox, scarlatina, and typhoid fever patients are more liable to suffer before than after thirty years of age.

3. *What is the influence of predisposition?*

Hereditary or acquired predisposition is, from the table, seen to play a considerable part in the production of all post-febrile psychoses, and in none more so than in the post-influenzal (72·7). Predisposition includes heredity, a history of previous psychoses or neuroses in the patient himself, previous brain-injury, alcoholism, anæmia, the presence of some degeneration such as syphilis, or senile decay, the menopause in women, and grief or shock after the feverish attack. The influence of a neurotic tendency, however, has often been exaggerated, from sheer force of habit rather than from accurate observation. Thus Mairé⁷ mentions the case of a woman who had no hereditary or personal antecedents whatever, yet includes it in a series of

others as strongly predisposed to brain disease. In nine cases of post-influenzal psychoses which I have seen (six of which I have reported),⁴⁴ predisposition existed only in two; of eighteen cases reported by Hack Tuke,¹² ten were predisposed and eight not so; of three cases described by Mucha²³ only one was predisposed; and Kraepelin,¹⁷ Ladame,³³ and Jutrosinski¹⁸ evidently go too far in looking upon predisposition as the exclusive ætiological factor in these conditions. On the other hand, the gravity and duration of these insanities are unquestionably increased by predisposition. The influence of alcoholism is seen to have been active in 10·8 per cent.

4. *What is the relative influence of the fever and the grippotoxine in the production of these psychoses?*

Fever and a special virus may be looked upon as the chief causative agents of all post-febrile insanities, but their influence differs remarkably in the different forms of these diseases. The fever (that is, increased temperature and cardiac action) is of the first importance in the delirium of inanition or collapse, which follows upon the crisis in pneumonia and the acute exanthemata, when in consequence of a sudden fall of temperature and simultaneous slowing of the heart's action, too little nutritive material is carried to the cortex, causing sudden exhaustion of the highest controlling centres, and setting free the uncontrolled energy of the lower centres, which is manifested by maniacal excitement. In the production of post-typhoid psychoses, on the other hand, the toxine of the malady seems to be more important than the fever, and the same I believe to be the case in influenza. In the latter complaint the fever is habitually too short and too slight to have much influence upon the nutrition of the cineritious matter; and the prostration of mental and physical strength is habitually so profound as to be utterly inexplicable except by assuming poisoning of the nerve-cells by the grippotoxine. Indeed we shall see presently that in the majority of cases of post-influenzal psychoses the feverish attack has been peculiarly mild. This holds good chiefly for the melancholia and the general paralysis which occur after influenza; while for the delirium of inanition, which also occurs, the fever must chiefly be held responsible.

Seeing how greatly cases differ in their clinical features, I am inclined to think that there must be great differences in the composition of the virus in different cases. Pfeiffer⁴⁷ has, in his latest description of the influenza bacillus, laid stress upon the circumstance that its size is found to vary considerably, some rodlets being very much larger than others; and it

is conceivable that in cases where the larger-sized bacillus predominates, or shows particular vitality, the toxine secreted by it may have a more deleterious influence on the nerve-cells of the cortex than the smaller kind of bacteria. In the same way Koch was enabled, in the beginning of the recent epidemic of cholera at Hamburg, to predict, from the size and vitality of the comma bacillus, or "vibrio," as some people now call it, that the outbreak would be a particularly severe one. Another important point is that psychoses are chiefly apt to occur after slight cases of grip which have been neglected, showing an analogy with some forms of syphilis, in which grave tertiary lesions tend to appear where the primary and secondary symptoms have been so slight as to attract little attention, and have therefore been insufficiently treated.

5. *What is the duration of post-influenzal psychoses?*

While insanities after the acute exanthemata, erysipelas, and pneumonia tend to get well in a week, those occurring subsequently to rheumatic, typhoid, and intermittent fever, and influenza, have generally a longer duration. Only 12·5 per cent. of post-grippal psychoses got well in a week, against 87 per cent. for scarlatina; 32·5 more had recovered within a month, and 55 lasted beyond a month. The latter were chiefly cases of the severer forms of melancholia in aged persons, and of general paralysis, while those which lasted a comparatively short time, were either cases of the delirium of inanition or of the slighter forms of melancholia in young persons.

6. *What is the proportion of cured, uncured, and fatal cases?*

Insanities after intermittent fever and cholera show a hundred per cent. of recoveries, while after small-pox and erysipelas we have 20 per cent. of deaths, after scarlatina 13, after pneumonia 10·5, after typhoid 7·7, and after influenza 7·6. The percentage of uncured cases after the latter is 35·8, and cured 56·6, so that the prognosis of post-influenzal psychoses appears to be tolerably favourable.

7. *Is there any relationship between the severity of the feverish attack and the subsequent occurrence of psychoses?*

I have divided the available cases into three classes, viz., slight, medium, and severe, and have found that 55·2 of these psychoses have come on after comparatively mild attacks of grip, 27·6 after severe attacks, and 17·2 after such of medium intensity.

8. *What length of time may elapse between the feverish attack and the outbreak of the insanity?*

This is a very important point, involving the question of *post hoc erga propter hoc*. Are we justified in attributing a psychosis to influenza when it occurs, say, three or four months after the feverish attack? In former years insanity has been referred to typhoid fever when there had been an interval of five or even ten years between the two events. The effects of injury to certain parts of the body, more especially as promoting the subsequent growth of tumours in the injured parts, seem to corroborate this view. I think, however, that we shall be more safe in looking upon a psychosis as really consequent upon some preceding infectious disease when it occurs:—

(1st) During convalescence from the latter; and

(2nd) Within six months after the attack, provided that no other causes have been at work during the interval; and also provided that the patient has, since convalescence, shown some symptoms of disturbed balance of brain-power, even where this did not amount to an actual psychosis.

A study of those cases in which the interval between the feverish attack and the outbreak of the psychosis has been accurately stated, has led me to the conclusion:—

(1st) That those psychoses which are characterized by delirious exaltation and mania are prone to follow very close upon the feverish attack, and begin, indeed, sometimes immediately after the crisis;

(2nd) That insanities distinguished by depression and melancholia are apt to appear somewhat later, viz., between a few days and a few weeks after the attack; and

(3rd) That general paralysis of the insane may be the latest of all, the interval between the attack and the first unmistakable appearances of the psychosis having amounted to as much as six months in a case recorded by Krypiakiewicz.³⁰

9. *Is there any special form of insanity induced by influenza which does not occur after other fevers?*

Kirn⁴⁶ speaks of a typical grippal psychosis characterized by acute mania and confusion, while Mairet⁷ considers true “*folie grippale*” to consist of melancholic delirium. Most observers, however, have come to the conclusion that there is no special form of insanity which could be considered as connected with influenza *per se*.

In the paper read before the Section I have fully described the clinical features of the various forms of psychoses which are apt to follow the feverish attack; but want of space prevents me from reproducing that description here. I will, therefore, only state that there are three principal forms of post-in-

fluenzal insanities, viz.: 1st. Acute hypochondriacal melancholia, with lethargy and loss of volitional power (41·2 per cent.); 2nd. Weber's⁴⁸ delirium of collapse, or inanition, and confusion, with hallucinations, followed by stupor (27·2 per cent.); and, 3rd. General paralysis of the insane of an extremely rapid (galloping) course (6·2). To these forms may be added—4th. The *pseudo-influenzal* psychoses, that is, various forms of mental disturbance, such as intermittent or circular insanity, delirium tremens, mania, etc., in persons with a long history of hereditary or acquired tendencies, in whom the feverish attack is only the accidental exciting cause of a disturbance which would also have occurred from any other cause, or perhaps no cause at all (25·4 per cent.). While, therefore, no actual specificity is shown to exist in post-grippal psychoses, they differ from other post-febrile insanities by presenting a greater variety in their clinical features; inasmuch as the first group mentioned is similar to the mental affections occurring after typhoid and rheumatic fever and whooping cough, while the second group resembles the psychoses chiefly seen after the acute exanthemata, pneumonia, and the puerperal state. After influenza, however, we see cases belonging to both groups indiscriminately, and, in addition to them, cases of general paralysis, which is hardly ever seen after other fevers. Indeed, Mickle⁴⁹ states that only in 12 out of 3,374 male general paralytics, and in one female out of 910, fevers were assigned as the cause, and that even these might perhaps be all explained away.

10. *How does influenza affect those previously insane?*

In some asylums the patients appear to have been much less affected by influenza than the attendants and other sane persons living in the institution, while in others no such difference has been observed. Leledy³⁵ states that in the asylum of Beauregard, near Bruges, which contains 400 inmates, only 15 patients had influenza, while the attendants and other employés suffered almost to a man. Of these 15 persons, only three were men, and twelve women. On the other hand, Mucha⁵⁰ found that in the asylum of Göttingen 15·3 per cent. of the male and 33·3 of the female patients had influenza. The attendants there suffered in much the same ratio, viz., 13·3 per cent. of males and 32 per cent. of females. Some light may perhaps be thrown on this singular circumstance by what happened in the hospital for the insane at Gladesville, New South Wales, where Sinclair, quoted by Ashburton Thompson,⁵¹ found that the attendants suffered more in three different buildings than the

patients, but that in the main building, where the percentage of male patients attacked was only 0·5, the female patients suffered to the extent of 41·5 per cent. This apparently unaccountable occurrence was eventually explained by the female patients having been employed in a laundry, to which infected clothing had been sent from another building. As soon as the female patients began to wash this clothing their side of the house began to suffer. The male side of the house being completely separated from the female side, and males not having been employed in laundry-work, they no doubt for this reason escaped infection. What happened in Charenton³⁵ is again different. There almost all attendants suffered, but not one of them seriously, while amongst the patients only the aged and those suffering from general paralysis, apoplectic and senile dementia, succumbed to the epidemic. Insanity, therefore, did not appear to be a protection against grip; but where the insane were spared, this seemed to be owing to their being isolated, and therefore less exposed to infection than others who moved freely about.

The effect of the feverish attack on the insane appears likewise to have varied very much in different asylums. The mental condition has either been left unchanged, or improved, or become aggravated. Mucha⁵⁰ tells us that in the asylum of Göttingen the influence of influenza on the mental affection was practically *nil*. On the other hand Leledy³⁵ states that the fifteen patients at Beauregard, who had influenza, appeared to be particularly lucid during the attack. Some who had been violently delirious became quiet; there was no difficulty in keeping them in bed, and they were altogether more manageable than previously.

In some recent cases decided benefit appears to have occurred. Metz⁵² mentions the case of a man, aged 33, who had been eleven months in the asylum for maniacal excitement with delusions, when he was seized with grip. The feverish attack lasted two days, and almost immediately after the crisis the patient became rational, and could be discharged a few weeks subsequently. Journiac³⁵ speaks of a similar case which occurred in a sister of charity, aged 48; but nothing is said about the further progress of these cases. Leledy³⁵ reports the case of a lad, aged 15, who was much improved by an attack of influenza, but had to be readmitted three months after his discharge, when he was as bad as ever. Van Deventer⁶ has described the case of a hysterical girl, aged 9, who had been subject to attacks of confusion with occasional lapses of

consciousness, and appeared to recover after an attack of influenza.

It seems possible that a condition of anæmia, with contraction of the arterioles of the brain, may be improved by the sudden congestion of the cerebral blood vessels which occurs during the feverish attack; on the other hand it is even more easy to conceive that a congestive or sub-inflammatory state of the brain and its membranes may be aggravated by such an incident. Cases of this latter kind appear, indeed, to have been much more numerous than those in which improvement was noticed. Instances in which the result was quickly fatal have been reported by Van Deventer,⁶ Bartels,²¹ and Leledy.³⁵

11. *What treatment should be resorted to in the different forms of post-influenzal psychoses?*

Change of air and scene, and avoidance of excitement and worry, are useful in the whole class of these affections. Insomnia, which is generally present, should be combated by prolonged warm baths, and such medicines as paraldehyde, sulphonal, trional, and amylen-hydrate. For the anorexia which is so common, bitter tonics and dainty dishes should be prescribed, while for general debility a combination of strychnine and arsenic is invaluable. In the depressive form of insanity, alcohol, in the form of champagne or whisky and Apollinaris water, is generally necessary; and the constant current of electricity, applied to the præfrontal lobes and the bulb, tends to clear up melancholia.

In the delirium of inanition and confusional and delusional insanity, hypodermic injections of morphine and atropine, followed by the free exhibition of alcoholic stimulants, are useful. When collapse threatens, hypodermic injections of ether and camphorated oil (1 grain in ten minims) should be employed. Bromide of ammonium combined with strychnine is indicated after the acute stage of this affection has passed off.

For general paralysis of the insane after influenza I can recommend mercury, together with large doses of iodide of potassium, while alcoholic stimulants must be strictly prohibited. Avoidance of excitement and of physical and mental efforts is in these conditions more especially important.

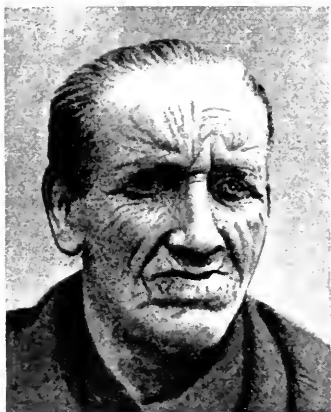
Where insanity after influenza appears to be grafted upon pre-existing neuroses or psychoses, each case has to be treated on its own merits. It is chiefly in this class of cases that determined attempts at suicide are made, and the patients should therefore be watched with special care.

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Some Further Remarks on Expression in the Insane. By Dr. JOHN TURNER, County Asylum, Brentwood, Essex. (*Illustrated*).

The following notes on expression are supplementary to a paper on the same subject published in this Journal twelve months ago.

Since that time I have collected a considerably larger number of cases bearing on the subject, and the conclusions arrived at from this larger number are quite in accord with those drawn from the smaller number. There are, however, some points which were only touched on in the last paper which will be more fully discussed here.

Considering that the different phases of expression dealt with are only capable of explanation by the theory of dissolution of the nervous system—that apart from it they are unintelligible and meaningless—I take it that the evidence their study affords gives additional support to this doctrine, which has been of great importance in the elucidation of nervous diseases, and will in the future, if corroborated, be of still greater importance, allowing us, as it alone does, to resume under one cause a vast number of isolated and otherwise inexplicable facts.

A large number of our emotional reactions are looked upon by some writers as of accidental origin, and although this may be true in some cases, yet I do not believe to such an extent as would include the “entire æsthetic life of man” (W. James’ “Text Book of Psychology,” p. 390). At any rate, when we meet with tricks of expression habitual to many different individuals, and, as seen in the adult stage, only occurring in cases of mental disorder, it is more satisfactory to seek some explanation of such expression than to regard them as purely accidental and of no great significance.

The doctrine of evolution, with its corollary of dissolutions of the nervous system, enables us to give a perfectly intelligible and rational description of insane expression, and to account for all its numerous peculiarities and divergences from expression in the sane.

Having in a previous communication attempted an explanation of the mechanism of asymmetrical muscular action in expression, it will be unnecessary here to again refer to this part of the subject, especially as such an attempt was merely

provisional, and will probably require much modification and alteration as our knowledge of the subject increases.

It is scarcely necessary to state that the whole group of phenomena dealt with in these papers—both the symmetrical and asymmetrical forms of expression—are referred to as instances of dissolutions of the nervous system; the only essential difference between them being that while in the former case the disablement of the higher centres concerned is supposed to have been equally distributed over both sides of the cerebrum, in the latter, one side of the cerebrum has suffered more than the other in either its entirety or in some particular part of it.

The first part of the following remarks will deal with some further points in connection with asymmetrical, and the second with some striking forms of symmetrical expression only met with among adults in the insane:—

I.—The expression which I shall first deal with is difficult to define—it most nearly approximates to sneering or snarling—but beyond the elevation of one side of the upper lip there is in most cases a distinct protrusion of the same not seen in the sneer or snarl, and which recalls the pouting lips of angry monkeys.

Darwin looks upon sneering as one of the most curious expressions which occur in man; he considers that it reveals his animal descent, and he looks upon it as the survival of the habit common in animals of uncovering the canine teeth before fighting (*"Expression of the Emotions,"* p. 264).

As met with among the insane, it often seems to have little or no evident relation to the mental states with which it occurs in the sane.

I have in the last year or two come across twenty-two instances of this asymmetrical elevation and protrusion of the upper lip—on the right side in ten cases, and on the left in twelve. All my most marked cases occur amongst idiots, imbeciles, or general paralytics.

The portraits (3 and 4) are both of patients presenting this feature. The one in whom it is the more marked is an idiot, æt. 36, and she is one of the cases where there seems to be no extreme emotional state associated with it, although I am inclined to think from the facts that I have never seen this action without a corresponding contraction of the corrugator supercillii, and also that on the days when she is very good-humoured it is quite absent, and that her mouth when she is smiling is strongly drawn to the left; that it is when she is displeased, or in an

ill-temper, that it is assumed. So habitual is this action with her that it has mapped out a permanent furrow on her cheek following the curve formed by the contracting muscle, and seen when her features are at rest. This condition in her case is only seen on the right side.

No. 4 is the portrait of a woman in a state of chronic insanity. Her tongue is seldom at rest, her talk is most incoherent, the ideas following one another according to similarity of sound in the words employed. She is an emotional old lady, and very easily loses her temper, when she gesticulates, almost invariably placing the left forefinger behind her left ear, becomes abusive, and very distinctly elevates and protrudes the right half of her upper lip, giving her face, which usually has a pleasant aspect, a very repellent look. She is fond of reading the Bible out loud, interpolating frequent remarks of her own, and it was whilst so doing that the photograph was taken. The condition, though well marked in her when very earnestly engaged in expressing her views, is not nearly so well seen as when out of temper. This old lady presents cerebral ptosis of left eye, which of late years has become more marked.

I have already referred in my former paper to a female general paralytic who presented this condition on the left side of her face, and whose expression in consequence was one of habitual snarling. I pointed out that in her case during her seizures there was a marked exaggeration of the asymmetry, and that the muscles affected were at these times the seat of clonic spasm. This woman also presented other animal-like propensities.

Before leaving this part of the subject let me just refer to the expression of anger or rage; for obvious reasons it is seldom that this expression can be photographed, and on this account, perhaps, the portrait of the woman No. 2 will have special interest. This woman was in a state of acute mania, extremely excited, talking indignantly and rapidly, gesticulating, and spitting in the faces of those about her. She was in the act of turning round to abuse me when the portrait was taken. She exhibits but in a symmetrical form the protrusion of the lips before referred to, and which reminds one of the features of the sulky monkey figured by Darwin. There is at the same time seen the widely-opened glistening eyeballs, dilated nostrils, etc. This woman, when not angry, had by no means a forbidding cast of countenance, nor were her lips then protuberant.

The above-mentioned are a few examples of a condition which, if it has any significance at all, seems to me only

capable of being explained on the assumption that we have here a return to a more or less primitive state, in which such an action was habitual and useful. Its occurrence and comparative frequency amongst the insane cannot fail to be of interest in the study of the dissolutions of the nervous system.

II.—The portrait No. 1 depicts a very marked condition of asymmetry in the brow of a melancholic woman, æt. 65. She was a chronic case, with every few months periods of excitement, during which she would sit and wring her hands, groan, and work her lower jaw from side to side in a most extraordinary manner, protruding it and touching her nose with her lower lip. Her expression was one of misery, but quite symmetrical. She began to refuse food towards the end of 1891, and it became necessary to feed her through the nasal tube, which proceeding she strongly objected to, struggled violently whilst it was being carried out, begged and implored us not to do it, as she was already “full up and had no passage for her food.”

Whilst being fed her forehead assumed the strongly-marked asymmetrical condition seen in the photograph. There was apparently almost entire paralysis of the right half of the occipito frontalis; for whilst a well-marked series of transverse furrows were seen on the left half of the brow sufficient to partly mask the fan-like radiating furrows caused by the strong action of the corrugator supercilii, these were quite absent on the right, and on this side the corrugator supercilii is un-antagonized, so that the brow is pulled downwards and inwards on the right side. On subsequent occasions, whenever she had any reluctance to take food, it was only necessary to threaten her with artificial feeding to call forth the above-mentioned asymmetrical condition.

Besides this case I have met with three other almost equally well-marked instances of a similar nature. It is by no means peculiar to melancholic states, and strong depressing emotions do not seem in every case to accompany it. The following are a few particulars of these three cases:—

No. 1.—A. E., an imbecile, æt. 49; only capable of being occasionally employed on simple jobs; dirty in habits; generally sits whispering and giggling to herself, and grimacing; has outbursts of laughter for which there is no obvious cause; sensibility of skin deadened, when pricked so as to draw blood on hands or face, will either pay no heed or else grin, or occasionally assume the asymmetrical condition. With her there is

very marked discordant action of the muscles of expression frequently seen. I have a photograph displaying the lower part of the face in a broad grin, whilst the forehead displays the asymmetrical condition in full force. She is very imitative in the matter of expression, and by frowning at her she generally responds, but in an asymmetrical manner, and by these means she was easily photographed; also, when smiled at, she grinned in response or burst out laughing.

No. 2.—An old lady, a case of senile mania, with much mental enfeeblement. The condition with her is not associated with any marked emotional states.

No. 3.—A single woman, æt. 69. Chronic insanity, probably the result of intemperance. She has delusions of grandeur; calls herself “Queen Emma,” etc. Writes voluminously to various public officials setting forth her grievances. Is a very excitable old lady, and it is when annoyed that her forehead displays the asymmetry.

In all four of these cases the same side of the forehead is affected.

In the female insane asymmetry of facial muscles (including inequality of the pupils and lateral deviation of the tongue when protruded) is met with in half the cases admitted. An analysis of 549 persons shows that 278, or 50 per cent., present some asymmetry distributed about the face as follows:—

	No. of Cases.	Per cent.
Upper zone (oc. frontalis and cor. sup. m.)... ..	123	22·4
Lower zone (mouth and nostril muscles)	36	6·5
*Pupils unequal	127	23·0
Tongue laterally deviated	150	27·6

The lateral deviation of the tongue, I imagine, represents a greater depth of dissolution of the nervous centres than the paralysis of the muscles of expression, and this supposition is borne out by the facts when we come to examine the gravity of the cases in question judged by their liability to recovery. Thus the largest percentages of recoveries is among the cases which have asymmetry of the facial expression in the upper zone, the lowest among those who present lateral deviation of the tongue on protrusion.

* A Russian observer, Zwiaguinintzeff (“Med. Russe,” Oct., 1887), finds inequality of pupils in 10 per cent. of healthy persons.

The following table gives the percentages of recoveries, deaths, and of those remaining amongst the patients presenting asymmetry :—

Region affected.	Recoveries.		Deaths.		Remaining.	
	Cases.	Per cent.	Cases.	Per cent.	Cases.	Per cent.
1. Upper zone <i>only</i> ...	21	37·5	11	19·5	52	43
2. Lower zone ...	12	33·3	4	11·1	20	55·5
3. Tongue ...	39	26·0	22	14·6	89	59·0

The lesser percentage of deaths among the second and third classes would at first glance seem to contradict the supposition, but as a matter of fact it does not; the higher mortality is largely due to intercurrent affections, not of nervous system. The graver forms of mental disease which do not recover, but end in dementia, form the bulk of all asylum populations, and have a low rate of mortality.

These figures, which, with a very small exception, refer to cases of acquired insanity, are quite in accord with the requirements of the theory of dissolution of the nervous system. Thus we find in recent cases that not only is the asymmetry more fleeting and less marked, but that it is first seen in muscles represented (for their emotional movements) in the highest and least stable of the nervous centres, viz., the muscles of the upper zone of the face. In more chronic and graver cases, that the asymmetry is more fixed—that as the disorder increases we get in succession the muscles of the lower zone of the face affected, and then those of the tongue, the implication of these latter representing the greatest depth of dissolution (of the three levels considered), and consequently met with among a less favourable class of cases. Eventually in cases of long-continued insanity and secondary dementia, as I pointed out in my last paper, even the trunk muscles are affected, so that the body leans over to one or the other side when the patient is in the erect posture.

So much for asymmetrical forms of expression. We have now to consider some expressions common in the adult insane which are normally peculiar to childhood. These are—(a) Pouting; (b) Weeping as displayed by children. The former is much the less commonly noted; indeed, I have only collected five or six instances amongst a community of over 700 people,

but we must recollect that it is rare in children, and probably never seen in sane adults.

Darwin remarks on the subject of pouting that "It prevails throughout the world."—"It is not common with European children, but commonly and strongly marked with most savage races."—"It is noticed in adult Kaffirs of both sexes, very frequently with the women of New Zealand." He thinks it results from the retention, chiefly during "youth, of a primordial habit, or from an occasional reversion to it" ("Expression of the Emotion," p. 242, ff). Under these circumstances the fact that we get such an expression spontaneously called up occasionally amongst the insane is significant, showing apparently that actions habitual or useful to us in the past are not readily forgotten. In the course of time and under varying conditions there is a heaping up of fresh centres on those already existing, whereby the lower ones have their workings hampered or stopped, yet the tendencies of these lower centres to react in certain specific directions still remain. Very probably properties inherited are never entirely eradicated, however long they may remain dormant, and if so each individual will contain the latent instincts of the whole series of his progenitors, so much the more will he have developed other centres and other properties, whereby his earlier and lower centres will be smothered beneath the accumulation of later mechanisms. Thus it is that under the influence of dissolution he first reverts to infantile and then to savage and animal customs. That such is the state of affairs is exemplified by a study of the insane, both as regards their expressions and general behaviour. And so also we find that the more rapid and superficial the culture of a race, the more readily they revert to primitive ways, a well-recognized fact which has become proverbial.

Among idiots and imbeciles, if I may judge from the few in this asylum, I should say that pouting was an expression very commonly met with in adult age. I have a photograph showing it distinctly in an idiot girl 13 years of age, and have noticed it in other and older cases.

In acquired insanity I have seen it well marked in a woman 42 years of age, a well-educated, emotional lady of an irritable disposition, who when displeased sulks like a child; gets by herself in a corner, pouts, and puts her finger to her lips. Also in a lazy, weak-minded woman 28 years of age.

In regard to the expression of childish grief and weeping it is to be noted that—(1.) It is largely displayed by the action

of the muscles of the lower zone of the face. (2.) That with it there is a remarkable squaring of the mouth, often with extreme eversion of the lower lip. (3.) There is also great flushing of the face and tears. Now it is rare, if ever, that this expression occurs amongst adult sane people except in a modified form accompanying extremely painful *bodily* states, but among the insane it is one of the commonest of all strongly-marked forms of expression.

The portraits 5 and 6 show it in an imbecile, æt. 35, and a general paralytic. The latter (No. 6) exhibits very marked eversion of the lower lip, her eyelids are tightly closed, tears well out from between them and course down her cheeks, her face flushes deeply, and she howls. The most trivial circumstance is sufficient to call up this extreme distortion of the features. The expression is, however, very transient; it is all over in a few seconds, and her features resume their usual calm, fatuous, and demented aspect.

In the case of the imbecile there is not any eversion of the lower lip, but the mouth is remarkably squared and wide open, two features very characteristic of children when they are crying. With this woman, as with the former, the slightest interference with her will cause her to assume this expression. In both, especially in the latter case, it cannot fail to be noticed that the lower zone of the face takes by far the larger share in the formation of the expression. The forehead in both women is quite smooth, with the exception of slight furrowing caused by some contraction of the corrugator supercili.

The imbecile here referred to possesses the most striking animal-like traits of any human being that I have ever seen. Her behaviour is monkey-like; she will gaze in a fixed manner, and suddenly blow out a lot of saliva in the faces of those looking at her, quickly dart out her hand, claw-like, viciously scratch and scream with rage.

It is a noteworthy fact that these grotesque forms of expression are most common in idiots and general paralytics. In the latter, a quickly progressive degenerative disease, it is most interesting to watch the gradual obliteration of the finer and more delicate shades of expression.

One other result in regard to physiognomy, of congenital absence, impairment or destruction of the higher levels of the nervous system is that we frequently get inharmonious action of the muscles of the two sides of the face, very probably as the result of deficiency in commissural fibres, etc. The muscles

of each side of the face act independently, so that whichever side the individual's attention is attracted from, it is the muscles of that side which respond only.

There is at present in this asylum an idiot woman who exhibits this condition in a very extreme form. One notices in her with different emotional states one-sided contraction of muscles of upper or lower zone; the right or left half of the forehead will be flung into furrows, or the mouth drawn up to either side as the case may be. Two other cases have been referred to in a former part of this paper, exhibiting crude and incongruous forms of expression, as coming under this category.

A large number of idiots of all ages are in the habit when at rest of widely opening and shutting the mouth, and continuously repeating this action, at the same time making slight ejaculations. I have not noticed whether this is more marked at certain times of the day, but it seems to me not unlikely that possibly it is associated with feelings of hunger.

Inquiries into a Variation of Type in General Paralysis. By F. ST. JOHN BULLEN, Assistant Medical Officer, West Riding Asylum, Wakefield.

Under this heading I propose to make a few inquiries relative to the principal forms under which this disease shows itself, and more especially into the likelihood that it is undergoing some modifications under various influences. This latter possibility has impressed me for some time, and, on addressing several specialists on the subject, I find that no few share the same opinion. So far as the question of modified type is concerned, the difficulty which presents itself at the outset is that it is uncertain whether the older writers recognized general paralysis under the Protean aspects now known to us—supposing them to have existed—and it may be an error to assume that its now varied forms are extensions of, or deviations from, a more concise and specialized group of symptoms. If, on the other hand, we can rely upon the observations of those who have spent a considerable number of years in lunacy practice, and can at the same time by statistics indicate that noteworthy differences are becoming apparent between recent and former cases of general paralysis, some basis for belief in a variation of type may be assumed.

It seems that very prominent distinctions in the forms of

general paralysis found in different asylums are evident, and varying opinions held by competent observers, so that it has appeared to me that a short paper might serve some purpose in calling forth discussion on, and further elucidation of, this subject. At the outset I must express my gratitude to those gentlemen, whose names are hereafter to be mentioned, who kindly gave me the results of their wide and valuable experience.

I have myself abstracted over 250 cases of general paralysis from the case-books of the Wakefield Asylum, taking a period of ten years, from 1880 to 1890, and subdividing this into halves for purposes of comparison. I am prepared to allow, without prevarication, that a considerable latitude must be given to statements on some particulars afforded by case-books, and, with the exercise of the closest scrutiny, no results can have anything like scientific accuracy. I have only selected male cases and those which terminated in death. The points upon which I propose to dwell are the following:—

1.—The relative frequency of certain recognized types of general paralysis, and the prominence or predominance of any one type.

2.—Evidence that locality—this including questions relating to urban or rural life, occupations, modes of life, etc.—has any notable influence on this change of type.

3.—Whether any alterations are observable in (1) the age at which patients are attacked; (2) the duration of the disorder, and (3) its distribution as to sex.

4.—Whether convulsive and apoplectiform seizures bear the same relation to each other, and to the disorder, now as formerly, in (1) frequency of, and (2) period of, occurrence, and what is their present significance in prognosis.

5.—Whether there are any changes to be noticed in the coarse post-mortem features.

1.—It is not necessary to allude to the many varieties in type recognized at the present—they are described at length by both Meynert and Dr. Mickle. We have to deal here with the relative frequency of the principal types. The former belief in the predominance of a maniacal form, with optimism, etc., has undergone an approved revisal, but as to what form of general paralysis has filled the gap left by the withdrawal of this “classical” form, there is yet a difference of opinion. In France, Messieurs Calmeil, Camuset, and Lunier have severally emphasized a greater prevalence of the melancholic type of general paralysis, the latter two recognizing in this a modification. Amongst several English asylum superintendents of the

present day I have found no corroboration of this view to the extent held by the forementioned authors. Drs. Merson (of Hull Borough Asylum), Revington (late of Prestwich), Robert Smith (of Durham), Saunders (of Exeter), and Samuel Lyon (of Bloomingdale, New York) all inform me that the maniacal type is far in excess of the melancholic, although Dr. Revington thinks that there is an increasing proportion of the latter to the former.

In my own statistics the cases in which excitement or ideas of exaltation and *bien-être* are found constituted 64 per cent. of the whole; those with depression and hypochondriasis only 13 per cent. Acutely maniacal characteristics (proving fatal before dementia overclouded) were present in but $5\frac{1}{2}$ per cent.; acute depression only in four cases. So far as my own experience goes, I, whilst fully recognizing the melancholic form of general paralysis, can only give it as forming a very small share of the total cases. Of all varieties, however, the primary demented type occupies a prominent place, and it appears to me that, at any rate in some localities, this type is on the increase, and is largely existent at the present. One aspect of this form Dr. Clouston alludes to under the title of "non-delusional," and asserts "that nearly one-third of his cases were of this character," and that it is a type very common in the female sex. Without adhering to his limitations in describing this special variety, and merely defining the class as primary progressive dementia, the following evidence may be quoted:—

Dr. Clay Shaw writes me: "I have no doubt that we get more cases of the demented and paralysed form than we used to, and that the percentage of these is not only greater, *quoad* other forms of insanity, than formerly, but that amongst general paralysis cases it is the most common form." With this, however, Dr. Shaw opines that the old classical form, whilst more rare nowadays, is yet to be met with, and exhibits no change in its course.

Dr. Merson writes: "Not only do I not see now the boisterous maniacal type I used to, but that in most cases there is marked dementia before the patients come under my care, and that without any previous history of melancholic or maniacal stages."

Others support this view. Dr. Leon Arnaud (Abstract, "American Journal of Insanity," July, 1891) says "that primary paralytic dementia is the most common variety of precocious general paralytic forms."

Dr. Folsoni, in the same periodical, writes concerning the prodromal stage of general paralysis: "This early stage is most marked in Meynert's 1st Class, the demented type to which the recent great increase in general paralysis belongs."

On the other side we find Dr. Mickle expressing himself in his text-book thus:—"In a *few* cases of general paralysis a dementia begins and includes the entire range of mental symptoms throughout the whole course." This, however, I take to apply to cases of the same class as Clouston's "non-delusional" form. Dr. Smith, of Durham, characterizes cases of dementia throughout as being rare, and the reports of the asylum bear this out plainly.

From my statistics I find that dementia occurring at the outset, or within a month of the earliest symptoms, is observable in 28 per cent. of all cases. By the end of three months nearly 38 per cent.; by the end of a year no less than 62 per cent. of all cases show dementia. Of the primary demented cases 7 per cent. more belong to the second period of five years than the first. As regards the stage of fatuity, out of 125 cases in which this was fixable in time, roughly speaking, 23 per cent. were fatuous within a year from the earliest symptoms, 53 per cent. by the end of the second year, and 79 per cent. by the end of the third. Cases of the "non-delusional" form I have met with in 15 per cent. of all cases of dementia.

I am unable to offer much evidence as regards the influence of locality, occupation, and degree of mental evolution on the type of general paralysis in such a short paper as this. Moreover, in such a question there are too many fallacies where only a limited selection of statistics can be studied to make positive statements of any value. I have analyzed a large number of asylum reports. Certain features become prominent, and might lead one to make inference were it not for the number of side-issues that can be raised. However, stating them (and they are probably familiar enough to us) must not be taken as equivalent to laying any stress on their importance. I quote simply as having a suggestive significance.

The admission-rate in general paralysis varies greatly in different asylums, and seems to move up with the diminution of rural occupations and the increase of such employments as are found in number in great centres of population, or colliery, iron-working, and pottery districts; so that we see in the asylums of Leicester and Rutland and Hereford, for instance, that the general and agricultural labouring class form nearly

40 per cent. of all occupations, whilst their admission-rate of general paralysis is but two per cent. and three per cent. respectively. In the Staffordshire asylums the rate of general paralysis runs up; so does the percentage of colliers and pottery-workers in the occupation-list. Again, at Derby County, where the general paralysis rate has been increasing for some years, and is now 20 per cent., we find the agricultural labourer contributing only six per cent., the colliery-workers 16 per cent. to the trades-list. Durham County also breeds the general paralytic in quantity, the average admission-rate for the last three years being 17 per cent., and the deaths from general paralysis nearly one-third of the total. At the North Riding Asylum the death-rate is even in excess of this. In these asylums the proportion of inmates formed by colliery and iron-workers is very large. The great centres of Lancashire also furnish an immense proportion of general paralytics to their asylums.

Besides variations in numbers produced, there are very marked disproportions evident between the types of general paralysis found in different districts. Dr. Smith, of Durham County, tells me that he finds the former boastful, elated characteristics replaced by violent and aggressive tendencies, and the reports of his asylum show that by far the larger proportion of general paralytic admissions and deaths are returned as mania of general paralysis, whereas of sixty-six cases admitted by me at Wakefield between 1890 and the present time over 50 per cent. were demented on admission (and that without history of previous excitement), and only about half-a-dozen really excited cases were received under care. Dr. Clouston allies the calm, demented type with quiet, rural districts. Dr. Clay Shaw writes me concerning the presumed numerical increase in the demented variety to the effect that he considers such to point towards a lower order of development in the classes from which are drawn the inmates of county asylums, and that the present form more resembles what is seen in insanity amongst races of inferior development, so that it would seem that owing to competition, large families, insufficient food, etc., amongst the lower orders, a less energizing nervous condition has of late prevailed, and this, of course, in the diseased state would show itself in a less evolved form of grouped symptoms.

It would be interesting to know what proportion of cases of early dementia is met with in private asylums. Dr. Lyon, of Bloomingdale, New York, which receives the upper classes of

society, informs me that he does not notice any change in the type or course of general paralysis now, as compared with former years, and apparently there is no striking proportion of demented cases. Dr. Savage has expressed himself to me as decidedly doubtful about any variation in type, and thinks that the apparent change is due to the further inclusion of previously unrecognized forms, and especially of syphilitic cases.

With regard to the age at which persons are affected with general paralysis I find the average of all the cases of this disorder admitted between 1880 and 1890 into Wakefield to be $42\frac{3}{4}$ years (on admission). From 1880 to 1885 the mean age was 41 years, and from 1885 to 1890—nearly 45 years—seventy-two per cent. of all cases were between 30 and 45 years of age, of which 21·5 per cent. occurred between 30 and 35; 25 per cent., 35 to 40; 26 per cent., 40 to 45; and $5\frac{1}{2}$ per cent. were between 25 and 30. So that here, at any rate, no alteration in the ages, generally considered as most attached to general paralysis, is obvious. However, Dr. Arnaud (*loc. cit.*) and Dr. Mickle both mention a lowering of the mean age. This subject of age is too lengthy to be discussed here, and, apart from statistical reckoning, any alteration in the way of an extension of the ordinary limits of age will be only apparent to individuals by the recognition of a notably increased number of very youthful or senile cases.

With respect to the duration of this disease, Drs. Burman and Newcombe, in the West Riding reports, gave the average (respectively) duration as 15 months (males) and $21\frac{1}{2}$ months. Dr. Mickle says the average was 28 months at the date of the first edition of his book, and 40 to 42 months at the second. Dr. Ascher, of Daldorf Asylum, Berlin, gives $14\frac{1}{2}$ months as the mean, after admission; 16·8 per cent. surviving the second year of treatment; and 26 months as the *total* duration in nearly half the cases. Opinions on this subject vary; some superintendents believe the disease runs a shorter course, others a tardier one. Each appears to me correct as regards the local varieties of general paralysis, but their views are conflicting when applied to general paralysis as a whole.

The average total duration in my cases was $2\frac{1}{2}$ years, and there was but little difference in the mean between the first and second periods of five years. I find that one-seventh of the total cases die by the end of the first year; three-sevenths by the end of the second; five-sevenths by the end of the third; and nearly seven-eighths by the end of the fourth, so

that a considerable portion live till the fourth year. The cases of primary demented type had an average of $2\frac{1}{2}$ years.

A pretty general impression appears to exist that the ratio of female to male general paralytics is on the increase. In Wakefield Asylum the ratio in admissions for 1859 to 1860, 1863-64 (the only tables available) was, on average, as one to six; from 1886 to 1890 inclusive, as one to five (this latter average is that of the Staffordshire Asylums), and one to $4\frac{1}{2}$ that of the Wilts County. At Prestwich (report 1889 and 1890) the ratio is one to three; at Rainhill (report 1887-89, 1890) rather more. In the former place the females are considerably in excess of the men. Dr. Wigglesworth remarks, in a recent report, that, "whether or not general paralysis in women has increased of late years is difficult to prove, but it is certainly by no means uncommon now amongst women of the lower class."

Next we have to consider the relationships of convulsive and apoplectiform seizures to each other and to general paralysis. I am informed by Dr. Merson that convulsive attacks occur in about half his cases, mostly in well-advanced stages of the affection. They are much more frequent than apoplectiform seizures. In regard to their characters Dr. Smith, of Durham, states that he misses nowadays the outbursts of convulsions, accompanied by rapid, bounding pulse, profuse sweating, and fever, and although the number of fits remains the same, or even higher (200 to 300), death is not so frequent a result, and temporary recovery often takes place. He also finds epileptiform more common than apoplectiform seizures. In Bloomingdale Asylum, New York, of 21 general paralytics admitted during the last twelve months five had convulsions and two apoplectiform attacks. Dr. Lyon writes to me: "The first convulsive seizures are not usually fatal, but they are generally followed by others, which are primarily or remotely so." A former assistant physician there has also spoken to me of the rapid, sthenic character of the general paralytics in New York, together with an almost invariable convulsive termination, the fits being often the first ones occurring, and not to be stayed by drugs. Dr. Newcombe found convulsions to occur in half his cases of general paralysis. Dr. Saunders, of Exeter, states that in his patients the disease rarely runs its course without the occurrence sooner or later of convulsions, but that these attacks are not frequently fatal.

I note amongst my cases, 272 in all, that eighty-six (or

31 per cent.) had convulsions, and seventy-five strokes, *i.e.*, a much smaller percentage of convulsive seizures, and a greatly increased one of apoplectiform over Dr. Newcombe's figures, and also a larger proportion of the latter than I gather from the opinions given to me is usual. In some asylums the import of the convulsive seizure would seem to be graver than in others; for instance, I note that in Prestwich Asylum, of the deaths from general paralysis in 1889 and 1890, 42 per cent. took place, accompanied with convulsions, according to the reports. In Wakefield Asylum the convulsive attacks are apparently becoming more infrequent. During the past two years not more than twenty cases of convulsions have been met with, though we have always over 50 male general paralytics in residence. Moreover, many of these instances were slight and localized seizures. And not for several years has there been a severe run of fits in any case.

The total duration of cases in which convulsive and apoplectiform attacks occurred, in 122 instances, was two years and nine months, or rather longer than the mean duration of all cases—this period alike for both forms of seizures.

The mean age of those of my patients who had convulsive or apoplectiform seizures was 40 years, or somewhat less than that of the total cases. Dr. Newcombe's results were similar. I find the average age at which seizures of both kinds occur to be about 42 years. Newcombe also states that nearly half the total number of male patients affected by seizures died within a month after the occurrence of the first pronounced attack. My figures bear this statement out, nearly 37 per cent. of the cases dying at the first attack, and nearly 12 per cent. more dying during the ensuing month. In a quarter of all the cases there was more than one attack of convulsions. There was no difference in the proportion of fatal convulsive attacks between the first and second periods of five years. Dr. Newcombe's cases died during 1870 to 1875, or before presumably, so that a comparison instituted between his cases and mine from 1885 to 1890 shows that after the lapse of fifteen years no variation has taken place as regards this asylum.

As to the period at which convulsions supervened, nearly half the cases having them had them during the first year; three-quarters of the total occurred by the end of the second. In the second period, from 1885 to 1890, however, the fits were more spread over the later years of general paralytic life.

Nearly two-thirds of the apoplectiform seizures happened by

the end of the first year, and the first attack is not postponed beyond the second year but in very few cases.

The last question I wish to raise is whether there is any change in the frequency or degree of the meningo-encephalic adhesions found post-mortem in general paralytics. In a former paper I stated them to occur in 61 per cent. of all general paralytic brains. In 136 cases (from April, 1886, to January, 1892) I found adhesions in 61 per cent. also, so that the number of cases remains unchanged. But the adhesions themselves appear often during this latter period of less extent and degree; and out of twelve cases dying this half-year, in six the adhesions were very slight or absent. All these were cases of early dementia except one. The others were old-standing cases, all of whom had had convulsive seizures except two, who were markedly of the melancholic type. I believe Dr. Wigglesworth's impression concerning a possible variation in these morbid changes is the same as mine, but he would decline to make any positive expression of opinion without careful investigation.

To sum up, it seems that although in every particular the type of general paralysis cannot be said to have universally changed, yet it is probable that in some feature or another alteration is to be noted very generally, and that in some localities prominent changes are apparent in the whole form, and that in the following details we may especially look for evidences of variation:—

1. Less pure and sthenic type of mania, with more infrequency of occurrence.

2. Greater frequency of primary demented cases, and an earlier onset of dementia in cases where emotional manifestations are primary.

3. Possible increased ratio of melancholic to maniacal symptoms.

4. Modification in the ages of patients attacked, in the duration of the disorder, and in its distribution as to sex.

5. Variation in the relative frequency in occurrence of convulsive and apoplectiform seizures; in a less sthenic character of the former, and in diminished frequency and fatal significance of them.

6. A possible concurrent change in the meningo-encephalic adhesions (post-mortem).

The Effect upon Mental Disorder of Localized Inflammatory Conditions. By EDWIN GOODALL, M.D.Lond., B.S., M.R.C.P., Pathologist and Assistant Medical Officer, West Riding Asylum, Wakefield.

Is the beneficial effect often produced in a case of recent and acute insanity by local inflammation (cellulitis) mainly due to the local disturbance or to a general, systemic disturbance? This question appears to me to have more than a mere theoretical interest, for the following reason:—If the effect noted be due mainly to the local inflammation we may go on applying blisters and equivalent chemical irritants on a sufficiently large scale to the skins of patients; but if the result is to be ascribed solely or largely to the accompanying general disturbance, it will be advisable to consider whether such cannot be evoked with greater certainty and thoroughness than is possible with the means now employed. I much doubt whether local inflammation, the result of chemical irritation, can be compared, from the point of view of influence upon existing mental disorder, with cellulitis* of unknown origin, such as occurs in the insane. Upon this point it would be instructive to hear the opinions of experienced observers. No one probably will deny that a more profound general disturbance is associated with idiopathic cellulitis than with inflammation due to chemical irritation. If, then, cellulitis is capable of producing the more striking mental alteration, it seems legitimate to ascribe this to the more profound systemic disturbance referred to. The qualitative difference in the nature of the irritants in the two cases possibly entails some difference in the modes of local reaction; even if this be so one would still, I think, be justified in adhering to the conclusion reached, *i.e.*, that the greater mental effect produced by cellulitis is due to the greater systemic disturbance.

If inquiry be made into the causes of the latter, in the case of cellulitis, it is at once apparent that they differ essentially from those operative in the case of "chemical"

* The occurrence of this cellulitis is a matter of great interest. In cases of general paralysis we may suppose that the vitality of the tissues is so much reduced as to permit the entry (by surface-wound or by the normal passages) and the development of organisms incapable of flourishing in the healthy body. In other cases this explanation is far less plausible. May not the ordinary othæmatoma be the product of bacterial activity?

inflammation. In cellulitis there is more than fever: toxic products are being conveyed through the body. With the degree of toxicity we are not now concerned—all that it is necessary to point out here is that pyogenic cocci are present at the site of inflammation, and are there producing a toxine, which we must suppose to be diffused over the system. In inflammation aroused by blisters, croton oil, etc., the question of an organism does not arise; we have not to do with a circulating toxine. A rise of temperature may occur, and this may or may not be an indication of fever.

The question as to the extent to which the circulation of toxic products is concerned in the production of the mental alteration often noted in cases of cellulitis amongst the insane is one capable of scientific determination. The necessary procedure involves a minimum of risk, for the amount of toxine introduced into the body can be absolutely estimated. Here is no question of the multiplication to an incalculable extent of a living organism. The quantity circulating is the quantity introduced, and no more. The direct transference from one patient to another of inflammatory exudate or pus from an acute abscess might be regarded as unjustifiable on the ground that, for all we know, the organisms producing these disorders are capable of causing pyæmia. But until it is shown that the toxins or metabolic products of these organisms are capable of producing inflammation and abscesses at parts remote from the seat of inoculation, the argument just mentioned cannot be urged against the proposal to inject the product of metabolism, freed from the organisms themselves. The chances of grave septicæmia must be but slight, otherwise we should meet with this complication oftener in cases of spontaneous cellulitis. By preliminary animal experimentation, by attention to technique, and by the injection, in the first instance, of minute doses, the risk of untoward consequences would, I believe, be rendered insignificant.

The material used for injection should be the product of organisms proved to be capable of provoking well-marked cellulitis. In a case in which the writer injected the products of metabolism of staphylococci from an acute and rather large boil into a patient there was practically no general disturbance; the slight rise of temperature (100°) and the malaise were adequately explained by the local inflammatory condition. The material injected was probably incapable of producing noteworthy systemic disturbance,

but some swelling and brawny induration around the seat of injection, with pain on pressure, bore testimony to a local reaction, though one mild in degree. This was not anticipated, as the culture had been carefully filtered, so that the presence of organisms was extremely unlikely. Even had an organism or two been present it is, I think, very improbable that such could have produced the local disturbance noted within the time which elapsed between injection and the appearance of local reaction (about 20 hours). But the likelihood is that the latter—which was but slight—was due to some irritating property of a chemical kind of the fluid injected, which, I believe, was quite sterile.

The following is in brief the procedure adopted in this case to obtain the products of growth of the micro-organism. It is not new, but may be of use if mentioned here. Pus was obtained from the boil after its surface had been cleansed (sublimates, alcohol, and ether). A cover-slip preparation of the pus showed diplo- and staphylococci. Tubes of broth were inoculated and kept in the incubator until they showed well-marked growth. Pure cultures of the cocci were obtained from these after the ordinary method of Koch, and from them a large quantity of broth was inoculated. After a couple of days in the incubator abundant growth was manifest in this. The bulk of the turbid broth was then filtered through a Kitasato porcelain filter, which had, of course, been sterilized. In this method the glass vessel surrounding the hollow porcelain cylinder is exhausted of air by a water-pump. The sterilized fluid falls from the porcelain at the rate of about five drops a minute. This is fast enough. A rabbit was injected with the filtrate (after cover-slip preparations of the latter had been made and shown to be free from bacteria) on two successive days. Altogether 25 min. were introduced. The animal seemed to eat less, but otherwise there was no evidence of local or general disturbance. The patient was then injected subcutaneously with 14 min. of the filtrate, the syringe (improved pattern used for tuberculin injection) having been properly cleansed.

The object of this paper is to put the question whether, by imitating what may be termed the method of nature, as displayed in the particular instance in point, we may not hope to bring about or accelerate cure in recent and acute cases of insanity, and to suggest that the imitation hitherto attempted is very imperfect and capable of considerable improvement.

*Some Remarks on the New Farm of the Omagh Asylum.** By
DR. GEORGE FRANCIS WEST, Assistant Medical Officer of
the Omagh Asylum.

The amount of land originally belonging to the Omagh Asylum amounted to fifty-two acres. This land surrounds the asylum, and is bounded partly by a wall and partly by a river.

Some time ago the authorities purchased an additional farm of about eighty-four acres for the use of the asylum. As this purchase has been viewed favourably by some and unfavourably by others, and as the question of buying land has been discussed in other asylums, I think it will be interesting to consider how this farm has worked, and how far it has succeeded.

The Omagh District Asylum for the counties of Tyrone and Fermanagh contains 306 males and 261 females. Both Tyrone and Fermanagh are agricultural counties, neither possessing large towns nor many manufactories, consequently instead of there being (as there are in the English asylums) a large number of tradesmen, the greater part of our male patients are farmers or agricultural labourers.

We have at the present time 306 male patients, and yet we have only one carpenter, one mechanic, four tailors, and two shoemakers working in the shops.

Under these circumstances it is evident that the best way of providing work for the patients to which they are accustomed would be by having a large farm, and about a year-and-a-half ago the asylum authorities purchased about 84 acres of additional land lying immediately outside the boundary wall, being separated from it by a country road. Of this land about 35 acres were rough land or bog, which required to be broken up and reclaimed. The rest of the land was in a very bad state; it all wanted drainage and manure very much.

The patients were set to work at once, and in addition to the men employed on the old farm, a number varying from 60 to 80 men were constantly employed on the new, the total number employed on the farm being 110.

We have found this work very advantageous to the

* Read at the Quarterly Meeting of the Irish Branch of the Association, held at the Mullingar District Asylum, October 27th, 1892.

patients. Greater numbers can be employed than heretofore, and some patients that refused to work before now go out regularly. Many of the patients appear to like working on the new farm better than on the old one. I suppose the fact of being outside the boundary wall gives them a sense of freedom, and many of them take quite an interest in the way the work of improvement is getting on.

The amount of work done during the past eighteen months has been very considerable. About seven acres have been thoroughly drained. Most of this work was done during the autumn and winter months, when there was little agricultural work. At present the men are engaged in sub-soiling the rough land and reclaiming the bog, a work which will employ them for a considerable time.

A part of the farm is also a good place for the female patients to go out on during the summer. There are some large grass fields sloping down to a small brook, and frequently the female patients come to these fields in fine weather. I have often during the summer watched the female patients in these fields. Some were sitting on the grass knitting or sewing, others were walking about or lounging near the brook. The worst and most violent patients were comparatively quiet, showing what I am sure many have observed, namely, the quieting effect of giving patients plenty of elbow room.

The scene reminded me very much of a large picnic, and compared very favourably with the old-fashioned airing-yards once so much used.

I do not wish it to be understood that our patients were always confined in airing-yards till within the last two years. On the contrary, the patients for many years past were accustomed to use the old grounds, which are very fine and well planted, but in addition to the advantage of variety, the fields I refer to being in the open country, and having an extensive view, must afford great pleasure to the patients.

I may mention that the attempted escapes are very few. During last year only two male patients tried to escape, and no female succeeded in escaping off the asylum premises.

I will now say a few words from a financial point of view, for I have heard some people criticize rather severely the new purchase on the ground that it would not pay. Putting aside the question that the farm is intended for the benefit of the patients, I could show that even as a business speculation it is a success.

When all the land is reclaimed it will make a great difference in the amount of provisions supplied by contract. Much of these will then be produced by the farm, which will constitute a two-fold advantage--first, a saving of money, as the provisions will be produced cheaper; second, a superiority in the quality of the articles over the same supplied by contract.

For instance, in the case of potatoes. On talking over the matter with the land steward, and taking a rather low average, I found that 19 acres would supply us for a year with potatoes at our present rate of consumption. Also with reference to milk. The consumption of milk last week was 625 gallons. Of this 370 gallons were supplied by the contractor, and 255 gallons by the fourteen cows kept by the asylum.

The Governors are building another byre, which will hold eighteen cows, thus largely increasing our supply of milk, and I hope they will soon see their way to build another of such a size as to enable us to keep a sufficient number of cows to supply the asylum with all the milk it requires the whole year round.

With reference to the meat supply, we consume five sides, or two-and-a-half cows per week. Nearly the whole of this is supplied by contract, and I do not think the present farm is large enough to assist much in keeping cattle for killing, but with 150 additional acres of land it could be easily managed. I fear the Governors, having so lately bought a farm, would not care to indulge in a new purchase for some time to come, but nothing succeeds like success. A short time will prove that farming pays, and I hope before many years to see a stock farm added to the asylum capable of supplying us with all the meat we require.

I have endeavoured in this short paper to show that the new farm is of great advantage:—

1st. To the patients, as affording a healthy occupation which is of great advantage to them physically and mentally.

2nd. As a means of supplying the asylum with provisions more cheaply and of a better quality than could be done by contract.

3rd. As a business speculation. The net profit of the farm last year was £498 5s. 9d., and the profit will increase every year as we continue to improve and reclaim the land.

Under these circumstances I believe I am justified in considering the new farm of the Omagh Asylum to be, from every point of view, a decided success.

*Systematic Dress-fitting for Female Inmates of Asylums.**
By ARTHUR FINIGAN, Medical Superintendent, District
Asylum, Mullingar.

In accordance with a resolution adopted by the Irish Branch of this Association in November, 1888, we are now assembled in a District Asylum, and this being our first provincial meeting I need hardly mention what a very great pleasure it affords me to offer a hearty welcome to the members who have been good enough to come to Mullingar to-day.

You will permit me to express a hope that this meeting may tend to permanently establish the practice (now so well inaugurated) of holding at least one meeting annually in an Irish asylum. Such an arrangement affords us an occasional opportunity of exchanging ideas on much that is interesting in the actual field of our labours, and in viewing each other's work we are enabled to draw comparisons with our own, which may stimulate us to give our best attention to judicious reforms for the asylum with which we may be officially connected.

The subject of this short paper, encroaching as it does upon the art of dress-cutting, is scarcely one that will admit of much discussion by the members of a Psychological Association, but when considered as a practical detail in asylum administration, it will be found to involve many interesting points bearing on the tidy appearance of female patients, economy in expenditure on dress materials, and the still more important matter of an agreeable employment for the female inmates of asylums.

Medical superintendents who make a practice of visiting public asylums for the insane, cannot have failed to observe (even in asylums that are well organized) the very large proportion of unbecoming and clumsy outer garments usually worn by the female patients. Even the most casual visitor can, as a rule, distinguish the insane inmates from their personal attendants by that peculiar dress which is a characteristic of public institutions (irrespective altogether of the brands or numbers which ornament the clothing in some asylums). Females under all circumstances are pro-

* Read at the Irish Quarterly Meeting, held at the District Asylum Mullingar, Oct. 27, 1892

verbially fond of dress, it enters largely into their diurnal anticipations, and our experience in asylums teaches that it exercises a powerful influence in the matter of moral treatment. However well the insane woman may appreciate the comfort of a luxuriously-furnished day-room, or a neatly-appointed dormitory, her individual self-interest is much more absorbed in her personal appearance, the character of which she is ever anxious to improve and adorn, unless, indeed, the feminine tendency lies altogether dormant, or be perverted in the extreme by an acute insanity.

Most asylum officials are familiar with the very decided objection occasionally offered by some recent admissions (especially in cases of mild melancholia) to put on the asylum clothing. Not unfrequently they look upon it with suspicion, or perhaps develop the illusion that such clothing is the badge of degradation or pauperism, with the result that an obstinate resistance is continued, and, as in the case of some of our famous political agitators, the patient elects to remain naked, or in bed, rather than array in this regulation or very apparent institution dress. If you will admit the possibility of such impressions arising in the mental condition of our patients, it becomes a matter of some importance in early treatment to rigidly avoid any cause that might provoke misunderstanding. To this end we should assimilate the regulation dress in asylums as closely as may be to that usually worn by patients when in health in their own homes. An attempt in this direction would necessitate a marked improvement in the style and finish of the dresses usually made up in public asylums. They should be shaped with a view to fit individual patients rather than be unskillfully cut out in dozens to replenish the institution stock. The personal preferment of patients might with advantage be consulted when their mental condition permits it, and for this purpose a variety in materials should be available.

To initiate and carry out a desirable reform of this kind enormous employment is involved for both patients and staff, as it necessitates each patient being separately measured and fitted. Fortunately the work is of an engaging description, and females, if in the least disposed to be industrious, are easily induced to attempt and persevere with it to within the bounds of success.

In illustration of the feasibility of such an arrangement I cannot do better than give a brief outline of the method

which has been practised successfully in this asylum within the last few years, and as you will have an opportunity of seeing it in operation in each of the female divisions you can form your own opinions as to its advantages or the reverse.

In this asylum, as in most others, the Charge Nurses are directly responsible for the order and neatness of the patients in their respective divisions, but as a qualification for their position it is a *sine qua non* that they be thoroughly acquainted with one of the systems of (so-called) scientific dressmaking. I may state that there are many such systems in vogue, but the Rapide tailor-cutting system is the best and most simple. The Anglo-Parisian and American Chart systems are also used by the more proficient nurses in this asylum. When time is available the charge nurse imparts her knowledge to at least two of her assistants, and when these are competent to teach, they form classes of the most intelligent patients, who take an active part in measuring, drafting, cutting out, and finishing dresses for their own individual wear. Encouraged in this way to take a personal interest in the work, it is often a matter of surprise to observe the number of indolent and even apathetic patients who, stimulated by the object lessons practised in their presence, are thereby induced to become voluntary pupils of this modified school system of moral treatment.

It is obvious this work must be carried out in the separate divisions of the female department, and such is rather an advantage, as it gives rise to a spirit of emulation between the various charge nurses who superintend to excel in turning out the best dressed patients; besides, it admits of the mistress in charge of general sewing to devote her entire attention to the making of nurses' uniforms and male under-clothing.

Apart altogether from the interesting employment which this mode of dressmaking affords, it further secures a considerable saving of material in comparison with the older plan of cutting out dresses in the gross. It has also been noticed that robes last longer owing to the ease and completeness of the fit, and patients are disposed to preserve their garments in proportion to the comfort experienced in their wear.

Systematic dress-fitting for the female inmates of asylums, when viewed in another sense, has distinct and permanent advantages, inasmuch as a moderately perfect knowledge of it enriches its possessor by a trade which may be turned

to practical account beyond the precincts of an asylum. More than one example of this is already within my knowledge, but I may specially refer to the case of a homeless, deluded girl who had been under treatment here for about three years. She developed a striking taste for this work, and by practice became proficient, so as to render material aid in teaching her fellow patients. Eventually she recovered, and on receiving her discharge, she obtained a situation in a flourishing house of business, where she was enabled to command a respectable livelihood, on the merits of a calling she had casually picked up in Mullingar Asylum.

*The Formation of Subdural Membranes, or Pachymeningitis Hæmorrhagica.** By GEORGE M. ROBERTSON, M.B., F.R.C.P. Edin., Medical Superintendent, Perth District Asylum, Murthly, late Senior Assistant Physician, Royal Asylum, Morningside, Edinburgh.

PART I.

Details of the Membrane Formation.

A discussion on the origin and nature of pachymeningitis hæmorrhagica at the present time is very desirable on account of the remarkable difference of opinion of those who have studied it. Two theories regarding its formation exist, and the best pathologists and neurologists have ranged themselves almost equally on either side. This fact of itself betokens that each view probably has some elements of truth in it, and that neither contains the whole truth. What, then, is greatly to be desired under these circumstances is a new theory that will combine the elements of truth contained in each of the old theories, and supply the deficiencies of both.

Both the *inflammatory* and the *primary hæmorrhagic theories* date back to the early part of the century, the former view having been adopted by Calmiel† and Bayle,‡ and the latter by Abercromby§ and Andral.|| The hæmorrhagic theory was the one more commonly believed in till Virchow wrote in support of the inflammatory theory in 1857.¶ Through

* Essay for the Bronze Medal Competition of the Association.

† "De la Paralyse chez les Aliénés," p. 394 (1826).

‡ "Traité des Maladies du Cerveau et de ses Membranes," p. 250 (1826).

§ "Pathological and Practical Researches of the Brain and Spinal Cord," 4th edit., 1845, p. 231.

|| "Clinique Medical" (translated by Dr. Spillan), 1836, p. 5.

¶ "Würzburg Verhandlungen" (1857), ii., p. 134.

the great reputation of Virchow as a pathologist, his account became generally accepted as the correct one, but now the hæmorrhagic theory is again attracting considerable attention, through the writings of Huguenin,* and the experiments of Laborde† and Sperling.‡

The details of the two theories, expressed in a few words, are as follows:—Those who advocate the *inflammatory theory* believe that there is a primary inflammation on the surface of the dura mater, which commences with a hyperæmia, and which develops a “false” membrane of inflammatory elements, as in any other inflammation of a serous membrane. It is noted that the capillaries in this new growth are very numerous and dilated, and show a great tendency to rupture, but the effused blood is bound down by the existing membrane, and prevented from escaping into the subdural space. The fluid portion of the effused blood is absorbed, leaving coagulated fibrine and pigment granules, and each successive hæmorrhage adds a layer, by which the membrane becomes thick and stratified, and in course of time fibrous.

The advocates of the *primary hæmorrhagic theory*, on the other hand, believe that a hæmorrhage pours out into the subdural space—the so-called “cavity of the arachnoid”—and that the dura mater at this stage is not inflamed. The effused blood coagulates and a fibrinous membrane forms, enclosing the more fluid portions, which afterwards become absorbed. The fibrinous portion, containing much blood-pigment, may then organize, and blood-vessels sprout from the dura into it. The subsequent changes in this membrane are much the same as already described, but it is strongly insisted that in this case the lowly organized “false” membrane is consecutive, and is secondary to the hæmorrhage, whereas in the former case the membrane was primary and the hæmorrhage into it secondary.

We shall not enumerate the various objections to the two theories that have been brought forward, nor shall we offer the explanations by which these have been met. To do so would be to record the history of a war that has been waged by the supporters of these two theories for nearly seventy years, and in which upwards of ninety writers, mostly French,

* Ziemssen's “Cyclopædia of the Practice of Medicine,” 1877, p. 386.

† “Contributions à l'étude des Conditions Pathogéniques des Kystes sanguins, etc.” Comp. Rendus. Soc. de Biol., 1864, Par. 4, s. i., 70-74.

‡ “Central. f. d. Med. Wissensch,” Berlin, 1871, ix., 449.

have been engaged. Instead of doing this we shall at once enter upon an exposition of our own views of the mode of formation and the nature of pachymeningitis hæmorrhagica, or, as we prefer to call it, subdural membrane.

At the very outset we shall state the physical factor which we believe to be the primary cause of this pathological lesion. We believe that the all-important element in the production of subdural membrane is sudden lowering of the intracranial pressure, and that the effect of this is analogous to a dry-cupping of the dura mater. If this factor be kept in mind, and its physiological effects followed out, we believe that all the essential facts in the nature and formation of subdural membranes can be accounted for. Before proceeding we would mention that this lessened intracranial pressure of which we speak is something more than the "loss of support" which is referred to by most recent and some older authors, and which in their opinion is due to brain atrophy. Such a cause of diminished intracranial pressure must take at least weeks to occur in the most exceptional cases, and cerebro-spinal fluid to compensate for this loss can, we know by experiment, be secreted by the choroid plexuses in large amount, and with considerable rapidity. We believe that diminished pressure sufficient to cause dry-cupping of the dura must be produced by a much more sudden cause than atrophy. The only agent that can do this is the blood in the vessels of the brain, and we believe, therefore, that there is either a constriction of the cerebral vessels producing a sudden shrinkage of the bulk of the brain, or there is a fall in the general arterial pressure, due commonly to an exhausting disease, whereby a deficient quantity of blood is sent to the brain, and a similar shrinkage occurs.*

In 1878 Dr. Clouston† wrote that he believed a sudden shrinkage was the cause of membrane formation, and it is noticeable that those most subject to subdural membranes, as the senile and general paralytics, are well known to suffer in a pre-eminent degree from vaso-motor derangements of the cerebrum. Such a sudden shrinkage of the brain, consequent on the partial withdrawal of the enormous quantity of blood which distends it at high pressure, must produce a very considerable lowering of the intracranial pressure, as very little will effect this result in a closed box like the cranium.

* We defer a much fuller consideration of this important subject of intracranial pressure to a later stage.

† "Journal of Mental Science," 1878.

The suddenness of this shrinkage we consider a most important element, as a sudden great demand for compensatory fluid could not be met at once, and hence the results of a shrinkage would tell with full force.

Should a sudden vascular spasm occur, as is supposed, the anæmic brain will tend to shrink from the cranial walls, and being fixed below by vessels, nerves, and the crura cerebri, it will tend to shrink towards the base, and leave a vacuum around it. In reality no absolute vacuum ever occurs under these circumstances, but greatly reduced pressure must exist around the brain, which in course of time may be compensated for by an increased effusion of cerebro-spinal fluid, but till that happens the blood vessels on the surface of the brain, and on the surface of the dura mater, are under very abnormal physical conditions allied to dry-cupping. The effect of this on the vessels of the pia-arachnoid is probably to cause engorgement, especially of the large veins near the surface, and this may in some cases go on to rupture. Dr. Bevan Lewis* and Dr. Wigglesworth† both believe that this occurs, and we have occasionally found hæmorrhagic areas under the pia-arachnoid, as the latter points out, and also blood pigment, the remains of old hæmorrhage. We believe, however, that this is a rare source of blood in the subdural space, as the outer layer of the pia-arachnoid is a dense and non-vascular membrane, which prevents blood from escaping. So tough is it in health that it is known to retain the blood when the internal carotid is ruptured, and in general paralysis, in which disease subdural membranes are so common, it is even more tough and fibrous than in health. The results of this lessened intracranial pressure on the vessels of the dura are probably much more serious. The dura mater is a tough, inelastic, and slightly vascular membrane, but it is covered by an epithelial layer, under which there are capillaries lying amongst a little loose connective tissue. In former times this was believed to be the parietal expansion of the arachnoid, and it was also believed to be stripped off by large hæmorrhages, and to form the internal layer of the so-called "arachnoid cysts." No one accepts these pathological views now, and the parietal arachnoid of the older anatomists is now regarded as only the superficial layer of the dura mater. This structure, of great tenuity, and consisting of epithelium, capillaries, and loose connective

* "A Text-book of Mental Diseases."

† "Journal of Mental Science," 1888.

tissue, is, however, very important to us, and we shall study the effects of low pressure in its blood vessels.

The first effect of lessened intracranial pressure in these superficial capillaries of the dura mater will be a disturbance of the natural balance between the intra-vascular blood-tension and the strength of contraction or tone of the vessels. A source of considerable support to the vessels has been taken away, and possibly even negative pressure produced, hence it is probable that the blood-tension will overcome the strength of the vessel walls, and great dilatation of the vessels, with engorgement by blood, will ensue. This engorgement and dilatation of the vessels on the surface of the dura mater, which we have deduced theoretically, is found by investigation to be an extremely common occurrence in those cases in which subdural membranes might be suspected to be found, and it also frequently accompanies these membranes. Out of 100 cases of general paralysis, Bayle found more or less injection of the "arachnoid of the dura mater" in 25 cases, and subdural membranes in 18.* The frequency of this vascular engorgement in these cases and its association with subdural membranes we believe points to a causal connection between the two, and, as a matter of fact, in pachymeningitis hæmorrhagica, according to Virchow, "the first thing observed is hyperæmia of the dura."† As regards the facts of the first stage of subdural membrane formation, we are, therefore, in agreement with those who hold the inflammatory theory, but we differ widely as to the interpretation of these facts. Whereas Virchow and his followers believe the injection of the dura mater to be the first stage of an acute inflammation, we believe it to be a mere mechanical engorgement of the vessels. The presence of this hyperæmia of the dura as a transient preliminary stage of membrane-formation has not received the attention it deserves from the upholders of the hæmorrhagic theory, because they are at issue amongst themselves as to where the hæmorrhage comes from, and perhaps because, being suggestive of inflammation, it has suited them to ignore it.

The appearance of the dura mater is very striking, for instead of being a pale glistening membrane, with a few rosy streaks, it becomes covered with luxuriant ramifications and dense meshworks of engorged cyanosed vessels.

* "Recherches sur l'Encéphale," Paris, 1838, p. 166.

† Althaus, "Diseases of the Nervous System," p. 188.

These are plainly visible to the eye, but can be best studied under the low power of the microscope. If we examine a fairly healthy region one sees few vessels injected, and they form long anastomosing loops. They are of narrow diameter, their contour is even, and they contain a small quantity of blood of a rosy pink colour. When one passes to a congested region the whole field is covered with gorged and dilated vessels. The vessels appear much more numerous. The anastomosing meshworks are closer, and the diameter of the vessels is from five to ten times greater. The vessels give the appearance of being morbidly distended with packed blood-corpuscles, as Cohnheim has described in passive congestion, and their colour varies from a deep red to a brownish hue, where deoxygenation has taken place owing to stasis. Vessels will also be seen with aneurismal dilatation, as if they had been distended to the bursting point, and in many cases the outline is very uneven, showing that the limits of the normal calibre had been over-stepped. Here and there in some cases minute hæmorrhage may be observed, and in the vast majority of cases some blood pigment will be found, the remains of a similar hyper-distension of an older date. This hyper-distension, with engorgement, may not pass on to a more advanced stage, but may resolve, leaving behind only a few pigment granules. The pigment is frequently found lying in a thin, broken line on each side, and collected in a larger mass at the angle of bifurcation of vessels which, no doubt, had extravasated it, when previously hyper-distended. In other cases it is found as a thick single line, evidently occupying the lumen of a vessel, in which stasis had occurred. We have had experimental demonstration, which has satisfied us that great engorgement, and even rupture of vessels, may take place on a serous surface, with reduced pressure, such as we believe occurs on the surface of the dura mater. Dr. Laborde, head of the physiological laboratory at Paris, dry-cupped the under-surface of the tendinous expansion of a rabbit's diaphragm, and produced great congestion, tortuous vessels, and small hæmorrhages, analogous to what we have described on the dura. Though this does not prove that engorgement of the vessels of the dura mater is due to a similar cause, it nevertheless demonstrates that it can be produced in this manner were the physical conditions existing.

We have now given a description of what we believe to

be the first stage of subdural membrane formation. This stage, as we have stated, may pass away, and only leave a few grains of blood pigment, where complete stasis had occurred, or where hæmorrhage had taken place. It may, however, pass on to what we describe as the second stage, if the causes producing lessened intracranial pressure have not passed off, or their effects been neutralized by compensatory cerebro-spinal fluid. After the superficial blood vessels of the dura have become over-distended, the fluid contents of the blood will tend to transude through their walls, as happens in all serous surfaces, for example, in the peritoneum and pleura, when there is passive engorgement, caused by cardiac failure. Now an increase of fluid in the subdural space, where normally very little or none is found, it being almost entirely confined to the subarachnoid spaces, is very commonly found in cases in which we would expect to find subdural membranes. Magendie* mentions, with some detail, three cases in which he found great increase of this fluid, namely, the general paralytic, the senile, and the phthisical, and these are the very cases in which subdural membranes occur most commonly. In some instances small hæmorrhages occur, which give the transuded fluid a coloured tinge, but effusion of blood by rupture does not necessarily accompany this stage, which, in the typical case, should just stop short of this.

When the hyper-distension of the vessels has reached a point beyond what has been described, the stomata on the walls of the capillaries will gape, and blood serum of greater specific gravity than before will pour out through these openings. Leucocytes will also pass through with abnormal readiness and in large numbers. This blood serum will effuse around the capillaries among the loose connective tissue, and it will be forced through the stomata on the dura mater, over the surface of the epithelium. Under certain conditions, sufficiently rare, but yet recognized by Cohnheim in his description of passive congestion, the fibrine in this effused blood serum appears to clot, and we find a spider's web membrane of interlacing fibrine threads with leucocytes, over the dura mater. As the stage between over-distension with effusion of serum and rupture of vessels with hæmorrhage is a very short one, and the special condition, perhaps, exceptional, we can hardly expect to meet with

* "Leçons sur le Système Nerveux."

this purely fibrinous exudation often. We have, however, met with two specimens of it without a trace of red-blood corpuscles, or of pigment, and we are certain that it is often overlooked. It is so thin and transparent that it can scarcely be seen when held at right angles, but if it be glanced at sideways, with the light shining over it, and if the surface be scratched with the point of a knife, it will be seen distinctly. It is so delicate that the best method of removing it is to cut it into a square on the dura and with the blade of the scapel to roll up the membrane from the edge like a carpet, and then to spread it out in water on a slide. The first case Brunet* describes appears to be similar to these we have mentioned, and it was examined by a practised microscopist like M. Ch. Robin. The membrane occurred in a general paralytic and was "very thin, very soft, semi-transparent, pale, with no red or yellow colour." M. Robin found microscopically "a granular appearance, finely striated, resembling fibrine in the way of decomposition. This aspect is due to numerous intercrossing flat fibres of very fine size, imbedded in amorphous material." "The parietal arachnoid deprived of this membrane is a little injected and is glistening." Brunet mentions specifically several times that no trace of blood was found, and hence he attributes an inflammatory origin to this formation, and he sums up as follows:—"The method of formation resembles that in other serous cavities. Thus we have found the injected surface from which the plastic exudation comes, etc. The first fibrillation is fine and resembles the appearance of fibrine. The resemblance is so close that it offers doubts to all but the most experienced microscopists." "To the naked eye it also closely resembles coagulated fibrine, spread out, but the latter is more opaque and more elastic, and more difficult to separate." "The addition of acetic acid, however, at once settles any doubts on this question."

It is just on this point that we differ from M. Brunet, for the presence of cells which the acetic acid discloses does not necessarily prove the formation to be inflammatory. These cells in our specimens are of two kinds; there are a small number of epithelial plates, and a much larger number of leucocytes. These epithelial plates are scattered, and simply appear to have been torn off the surface of the dura mater, and are not in such numbers or

* "*Recherches sur les neomembranes et les Kystes de l'arachnoïde*," Par., 1859.

in groups as we would expect to find them were there any cellular proliferation. The mere presence of leucocytes is not of itself sufficient to prove the existence of inflammation, as they are found in small numbers in all serous fluids, and they would be certain to escape wherever much transudation was taking place. Their numbers in some parts of the membranes are extremely few, and on the whole they do not exceed in number the leucocytes found in a similar sized portion of the "buffy coat" of coagulated blood, and, therefore, their presence in these numbers does not suggest inflammation to us. In fact, so alike are these two tissues, this fibrinous membrane from the dura and a piece of washed coagulum from the "buffy coat," that if only a small area be examined microscopically no essential difference can be made out in many instances. For these reasons, therefore, we believe that this fibrinous membrane is nothing more than coagulated blood serum, which has escaped from the blood vessels, as we have already described. When the membrane is spread out and stained it is found to consist of a felted mesh-work of extremely delicate threads, in which are many leucocytes and an occasional large cell, with a deeply-stained oval nucleus. There are no vessels and no species of organization. In the dura mater, from which this membrane has been taken, there can be seen the congested vessels, as a general rule.

On transverse section of the dura mater and the membrane we see lying on the surface of the dura a stratified membrane of short, transversely-cut fibrine threads and leucocytes. In the deeper layers some epithelial cells can be seen, evidently picked up from the surface of the dura, where some are still to be found adhering to it. Below this line can be seen the gorged vessels of the superficial layer of the dura, and around them the loose connective tissues, much more open than in health, and containing many wandering leucocytes.

The supporters of the hæmorrhagic theory would explain the presence of this fibrinous membrane by stating that blood had effused from somewhere, and that the red-blood corpuscles had become decolorized and washed away. Whether a small quantity of blood extravasated from one bleeding point could possibly be spread over such a large area in such uniform and extreme tenuity, and finally if such complete lixiviation could occur, are matters of extreme doubt and have never been demonstrated.

We have now concluded the second stage of the formation of subdural membranes, and we have so far accepted the

facts observed by the supporters of the inflammatory theory, but we have differed in our explanation of them.

The third and last stage of subdural membranes formation is that of hæmorrhage. It is obvious that if low intracranial pressure be still maintained the strain on the distended and engorged capillaries will result in rupture with the effusion of blood. This hæmorrhage, unless of the most minute description, will rupture and escape through the sodden and loose superficial layer of the dura and will dissect its way under the fibrinous membrane. As a general rule these primary hæmorrhages, though numerous, are not much larger than a pin's-head or a pea, and therefore they are easily retained by the fibrinous membrane. The effused blood soon coagulates, and then the membrane grows thicker and stronger. Newly-formed membranes are sometimes got in this condition, consisting of a large fibrinous expansion, enclosing small coagulated hæmorrhages, or, as Rindfleisch* describes it, "a lax, gauzy, yellowish efflorescence, studded with innumerable bloody points." As a general rule, however, these membranes are not seen till they are much older, and they are then found to be much thicker and in layers, which alterations have been produced by successive hæmorrhages. In an old membrane, therefore, hæmorrhages of all ages may be found, some recent and resembling a blood clot, some discoloured, and still others whose locality is betokened by large collections of blood pigment, which give a yellowish or brownish tinge to the membrane. No doubt some slight irritation of the dura is now produced, and blood-vessels, which may be seen as reddish threads when the membrane is raised, pass into the membrane, "where they break up into stellate ramifications,"† and a low form of organization takes place, the fibrine becoming fibrous and the cells spindle-shaped. The newly-formed blood-vessels, being probably subjected to the same lessened pressure as the superficial vessels of the dura, also become very "irregularly dilated, bulging and twisted," and "their calibre is, on an average, from three to four times wider than that of ordinary capillaries."‡ The walls of these newly-formed capillaries consist of nothing more than a delicate membrane and sparsely scattered spindle cells. Under these circumstances it is not surprising that they also are very liable to burst, and as the

* "Pathological Histology," p. 302, "Syd. Soc. Tr.," Vol. lviii.

† *Op. cit.*

‡ *Op. cit.*

membrane grows larger the vessels grow larger, and the hæmorrhages are sometimes of great size. A hæmorrhage the size of an egg on the back of one's hand is frequently seen in the middle of an old membrane, and this is sometimes called, when recent, a "hæmatoma of the dura mater," and when old and containing brown serous fluid, an "arachnoid cyst." According to the supporters of the hæmorrhagic theory, even large hæmorrhages are not necessarily retained by two layers of a previously existing membrane, for they believe that when much blood is effused in the subdural space it may be retained by coagulation of the fibrine on the external and internal surfaces, and it subsequently adheres to and organizes in the dura. The truth of this view has been demonstrated by experiments by Laborde and Sperling, and we have such a membrane experimentally produced in a dog by M. Laborde. Although we have received complete confirmation that this last mode of formation may occur, yet in many instances there is a gradual beginning, such as we have described. We have seen so frequently disseminated hæmorrhagic spots under a fibrinous expansion, which could not be accounted for by a sudden profuse hæmorrhage, we are convinced that membranes are certainly antecedent to the hæmorrhage in some instances. Some of those who uphold the inflammatory theory strongly, but feel bound to admit the facts of these experiments, get out of the difficulty by asserting that the clotted blood irritates the dura, so that wandering leucocytes and vessels enter the clot, and that, therefore, despite its hæmorrhagic origin, the organized membrane is really of an inflammatory nature.* This, however, is an evasion, for the question at issue was whether subdural membrane was produced by a primary inflammation with exudation or by a primary hæmorrhage with subsequent organization.

It will be seen that although we have accepted the observations of the inflammatory school, yet we have demonstrated that the whole membrane may be blood clot, as the supporters of the hæmorrhagic theory assert. We stated at the beginning that there was part of the truth in both theories, and we have endeavoured to take what was true in each, and attempted by offering a new interpretation of accepted facts to satisfy all objections.

(To be continued.)

NOTE.—Part II. contains an account of the physical and general conditions accompanying subdural membrane formation.

* Christian, "Ann. Méd. Psycholog.," 1874, Juillet, p. 33.

CLINICAL NOTES AND CASES.

Case of Endothelial Tumour of the Dura Mater (with Illustration). By F. LISHMAN, late Clinical Clerk, Northumberland County Asylum, Morpeth.

The specimen to be described was obtained at the post-mortem examination of a patient in the Northumberland County Asylum.

The patient was a man aged 65, who had been an especially heavy drinker. He was admitted into the asylum on March 22nd, 1892, suffering from dementia due to organic brain-disease. He was very aphasic and could only say a few words. He had, more or less, general paraplegia, which resulted from apoplectic attacks at different times during the few previous years. He died on June 23rd, 1892, from an ill-defined apoplectic attack a few days previously.

On *post-mortem* examination the brain was found to weigh 44½ ounces. A large amount of fluid—about 6 ounces—escaped on removal of the brain. The membranes were much thickened and opaque, but stripped readily. The vessels at the base were exceedingly atheromatous. Convolutions were atrophied, brain substance soft and watery. Subarachnoid fluid considerable. Lateral ventricles distended and containing slightly turbid fluid. There was a huge softening in the tip of the left temporo-sphenoidal lobe, and there were numerous other areas of softening over both hemispheres. The tumour was situated in the left middle cerebral fossa, at its anterior part, about one inch from the middle line and attached to the posterior border of the superior surface of the great wing of the sphenoid. It originated in the dura-mater, and was removed with a portion of that membrane. It was about the size of a walnut, of a pinkish-grey colour and firm consistence; it might almost be termed of cartilaginous consistence. Its surface was irregular and somewhat cauliflower-like.

All the other internal organs of the body were carefully examined, and there was no indication of any other secondary (or primary) growth.

This case is recorded because of its pathological interest and comparative rarity. From a clinical point of view it is devoid of any importance because of the impossibility of diagnosing the tumour before death, and because such gross cerebral lesions as are mentioned above were undoubtedly

FIG. 1.*

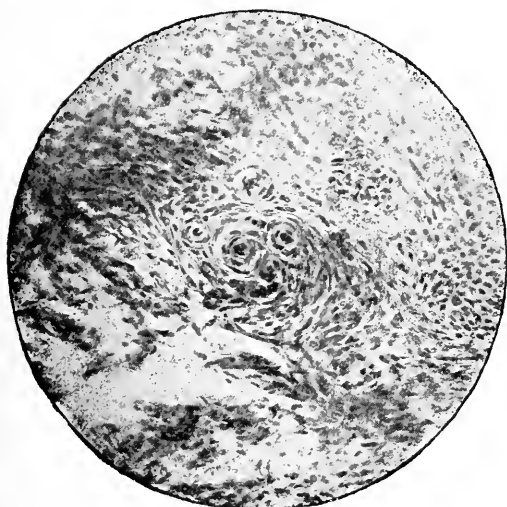
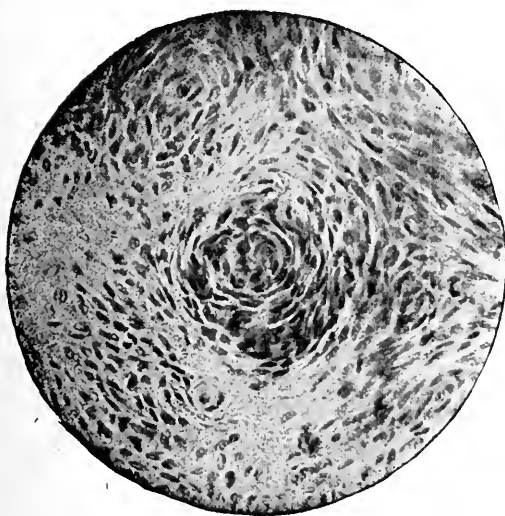


FIG. 2.*



* Magnified with Zeiss' Apochromatic: Num. Ap. 0.95; equivalent focus 4 mm. \times 250.

capable of producing in themselves, and did produce, such symptoms as would effectually conceal any that, under other circumstances, might have added extreme clinical interest to the case.

Under the microscope the section presents the typical appearance of an endothelioma. The large amount of fibrous tissue arranged in an alveolar-like manner enclosing groups of cells, crowded together, concentrically laminated, and which are endothelial in character; this, with the blood vessels running in the stroma, gives us the pathological picture of a true endothelioma. (See Figs. 1 and 2).

In using the term "endothelioma," a confusion will result if a distinction be not drawn between this and other tumours into which endothelial elements enter (*e.g.*, alveolar sarcoma).

In *endothelioma* the endothelial cells are derived solely from the serous lining membrane of the lymphatic vessels—this is not the case in other forms. Ziegler in his latest book has arrived at this conclusion, as a method of distinguishing and defining the true epithelioma. He further states that typical cases of the tumour show columnar projections of these conglomerated endothelial cells, indicating the course of the lymphatic vessels, and these, when cut transversely, will show a lumen if it is not already obliterated. There does not yet appear to have been described a case in which the lumen of the lymphatic vessel has been observed. It is specially interesting, therefore, to observe in this section what is apparently such a distinct demonstration of the above opinion expressed by Ziegler. In parts of the section the columnar arrangement can be made out where the vessel has been cut longitudinally, but these can only be followed for a very short way, as they are probably very irregular in their course. Very many columns are seen to be cut transversely, and nearly all of these seem to have a complete occlusion of their lumen; in the centre of some few of these, however (which are shown in the figure), there is a distinct lumen with its surrounding wall, giving every evidence of an advancing proliferation of its endothelial cell-elements, which would, no doubt, in time completely occlude the lumen.

Endotheliomata are of a benign character and probably of slow growth, seldom giving rise to trouble except by direct pressure on vital parts of the encephalon.

In considering the *diagnosis* of endothelioma its resem-

blance in certain points to the alveolar sarcoma and carcinoma must be borne in mind. These three tumours present some marked resemblances. All have the arrangement of alveoli supported by fibrous tissue, and all have their blood vessels not running in and anastomosing between the individual cell-elements, as in most of the sarcomatous tumours, but running in and supported by the fibrous tissue stroma.

In *alveolar sarcomata* each individual cell is surrounded by a fine prolongation of the fibrous tissue forming the supporting framework of the tumour. Further in this tumour there is never seen the radiating arrangement nor the true processes of the special cell-elements as observed in the tumours under discussion.

In *carcinoma* there is not the concentric arrangement of spindle cells around a central axis. The situation of the tumour debars it from being a carcinoma, growing from a fibro-serous membrane which contains no epithelial elements. The presence and absence of secondary growth would, undoubtedly, weigh in the diagnosis here.

The study of endotheliomata will ever remain a matter of scientific and pathological interest and curiosity, but probably it will never come to possess any measure of clinical importance by reason of their comparative non-evidence during life.

My thanks are due to Dr. T. W. McDowall for permission to record this case, and also to Dr. Whitwell, of the West Riding Asylum, Menstone, for the careful preparation of the sections of the tumour.

*Syphilitic General Paralysis.** By M. J. NOLAN, L.R.C.P., M.P.C., Fellow Royal Academy of Medicine, Senior Assistant Medical Officer, Dublin District Asylum.

At the present time, when our *fin de siècle* knowledge of "general paralysis" enables us to recognize under that generic term many types of the disorder, and when the relation between it and syphilis continues a rather vexed question, little apology is needed for introducing to notice the following cases. They illustrate unmistakably some of the instances in which syphilis is solely responsible for what

* Paper read at the Quarterly Meeting of the Medico-Psychological Association, held at the Mullingar District Asylum, October 27th, 1892.

is termed by Dr. Savage "A process of degeneration which ultimately produces the ruin we recognize as general paralysis."* Whatever may be hereafter formulated from the present evolutionary crisis in the history of the disorder there can be but little doubt that syphilis will be one of its most intimate and important relations. The story of its methods is briefly sketched in the following two short life-histories—in one asserting itself in the offspring of its victims by right of impure heredity, in the other carrying death direct into the vital centres by the force of its malignant virus.

CASE I.—*Hereditary Syphilis*.—General paralysis due to congenital syphilis.

History.—J. B., æt. 18, admitted September 10th, 1891. Paternal grandfather died in Richmond Asylum. Patient's father had been many years ago "a show case" of syphilis in the Dublin hospitals, furnishing the subject matter for clinics on nearly every manifestation of specific disease. At present he is convalescing from an attack of hemiplegia, and is pathologically exalted on every point—family position, independence, etc.—but on none more than the fact that he has been so favoured a victim of syphilitic virus, which he proudly states he has transmitted to his wife and children! In the case of the patient, the wretched old man would seem to have watched and noted every evidence of the poison he transmitted with the interest and joy which a gardener takes in regarding the successful unfolding and conformation of a prize exhibit, and, stranger still, he has infected his wife—cachectic and miserable through her husband's misdeeds—with the same morbid and revolting sense of satisfaction! The patient, it would seem, as a small and sickly infant, had convulsions a few hours after birth. Subsequently he enjoyed fairly good health to the age of 14, was active, intelligent, and gifted with rather more than the usual musical talent. When 14 years old he had "convulsions" for two days. These were followed by some degree of mental deterioration. At 16 the fits returned, producing more marked mental damage, insomnia, change of temper, and loss of memory. Early in January, 1891, he had four very severe epileptiform seizures, and on the 27th March one fit, which left him "paralyzed," and since that time to date of admission, a period of nearly six months, he has had slight attacks, averaging about one per month, which did not apparently increase the mental or bodily breakdown.

On admission.—*Physical condition*.—Patient has the characteristic physiognomy of the victims of congenital syphilis. Head is

* Tuke's "Dict. Psycho. Med.," Art. "Syphilis and Insanity," Vol. ii., p. 1257.

small and misshapen, scars at angles of mouth, pegged central incisors; skin dry and wrinkled; hair scanty, short, and brittle. Examination of the eyes showed interstitial keratitis. The nose is depressed. He is miserably wasted, weighing only 7st. 7lb. in his clothes, though five feet five inches in height. His upper limbs are out of proportion to his body, his lean, withered hands being unduly long, the joints nodular, and the skin lying in fissured folds. His pupils are unequal, and irregular in contour, responding sluggishly to accommodation and light, and but very slightly to the sympathetic reflex. There is general tremor, and febrillar twitching of facial muscles. The plantar, knee jerk, and cremasteric reflexes are very exaggerated. Ankle clonus is well marked. His gait is hasty, uncertain, and tottering. There is general cutaneous hyperæsthesia. The tongue movements are jerky, and its extrinsic muscles are very tremulous. The speech has the most typical characteristics of "general paralysis" articulation.

Mental state.—Patient smiles and grimaces. It is difficult to arrest his attention, as he is busily engaged in gathering up and secreting any rubbish that is about. His responses to questions evidence a marked dementia. He can tell his name, but not his age, residence, names or number of other members of his family. He states that he is feeling "very well" and "very happy," and in silly fashion spars at those about him; a moment later he cringes as if in fear, and whimpers like a beaten cur.

Progress of case.—For six weeks subsequent to his admission patient underwent very little mental or physical change. His conduct was practically identical with that of many of the general paralytics with him in the infirmary, and his physical signs and symptoms (already noted) continue to correspond closely to their similar conditions. His speech trouble seemed to increase more rapidly, perhaps, than his other advancing infirmities, and his mental state was almost uniformly a restless dementia.

November 1st, 1891.—Suffered from a slight epileptiform seizure, which was followed by paresis of right side, and spastic rigidity of his right side. Control over the rectum and bladder lost. Pupils widely dilated, unequal, and very tardy reaction to light. A few hours later *decubitus acutus* formed over sacrum. Is unable to respond to any questions, or comprehend any direction. Very weak; temp, 100·6; pulse 90. Mentally apathetic.

November 3rd.—General spastic rigidity. Marked fibrillar twitching of all muscles, most pronounced on the vastus externus. Increased hyperæsthesia over spine. Temp. 102°; pulse 97. Condition in other respects unchanged.

November 4th.—Rigors. Deep flush over malar prominences. Cardiac action feeble and excited. Pulse 110; temp. 104°. Grinds teeth and makes masticatory efforts.

November 5th.—Pupils regular, with brisker reaction. Further

increase in patellar, plantar, and cremasteric reflexes. Temp. 100°; pulse 90.

November 12th, 1891.—Apparent slight improvement during past week. Temperature ranged between 100° and 101°, pulse about 90. Mentally has become excited, shouting, crying, and destructive.

November 17th.—Continued as last noted for past five days. To-day several petechial spots appeared on the chest, arms, and legs, and large purpuric extravasations over the buttocks and abdomen. He became very prostrate, refused food and medicine, and gradually collapsed, his temperature falling to 97° on the 20th. He died on the morning of the 21st, death being preceded by a succession of slight convulsive seizures.

Post-mortem examination.—Calvaria thickened and asymmetrical. Dura mater adherent, thickened and rough. Pia mater opaque and thickened; when removed left the convolutions exactly as in general paralysis. Cerebrum small, with badly marked and indefinite fissures. Brain substance soft and watery; ventricles distended with fluid. Examination of viscera showed large syphilitic gumma of right pleura extending from the second to the fifth rib.

Lungs and heart small, but healthy. Stomach small; intestines diminished in lumen; mucous membrane opaque and jelly-like, giving amyloid reaction. Liver, spleen, and kidneys were atrophied, and gave amyloid reaction.

Remarks.—The physical signs and symptoms indicative of “general paralysis” are fully confirmed by the post-mortem appearances, which were absolutely typical of the most characteristic lesions noted in that disorder.

Possibly cases of this kind are not as rare as asylum physicians would incline to think from their intern experience, as for many reasons they may not find their way into these institutions. On the other hand, in general hospitals they may very probably sometimes be confounded with the “juvenile dementia of inherited syphilis,”* with which it has many points of contact in its symptomatology, but it will be remembered that pathologically they are wide as the poles asunder. Again, had this patient died at home his terminal illness, so very suggestive of meningitis, would have diverted attention from the real nature of the case were not the full antecedent history known to the physician.

CASE II.—Acquired syphilis.—General paralysis of local cerebral origin (gumma in the right frontal lobe).

* See Tuke's “Dict. Psycho. Med.,” Article “Syphilitic Disease” (Drs. Barlow and Bury), Vol. ii., p. 1267.

History.—A. B., æt. 41, admitted 27th February, 1892. Van driver. No hereditary history of insanity, or evidences of collateral neuroses. Married 25 years; very industrious habits, anxious temperament, moderate sexual appetite, and remarkably temperate. Six years prior to admission patient returning from a friend's house late at night, and fuddled by three glasses of whisky which he had taken, had connection with a prostitute, from whom he contracted a hard chancre. In recognition of his uniformly excellent character and the exceptional circumstances that led to his offence, his wife forgave him, so that their cordial relations remained unchanged. He suffered in due time from all the constitutional evidence of syphilis, which he gave to his wife, who became a victim of grave specific uterine disease. At the end of three years all active symptoms ceased, and for the two years immediately following they enjoyed fair health. About thirteen months prior to his admission Mrs. B. noticed that her husband, who had previously a very acute sense of smell, could no longer perceive any odour, and about the same time he became sleepless, dull, and very forgetful. Later he complained of a fixed pain in the right antero-lateral cephalic region, and this increased in area and intensity until it invaded the entire right side of cranium, and was so severe that he frequently screamed aloud, struck his head violently against the wall, and at night, when its exacerbations were at their maximum, he was accustomed to hold it under a water tap, and tie cords as tightly as possible round the scalp. The apathy, insomnia, and amnesia increased daily, and taste hallucinations became prominent. His action became purposeless, his movements uncertain, and general tremor set in, at the same time that he began to lose sexual power and desire, which latter had been for a brief period abnormally strong. His broken slumber was disturbed by dreams of a distressing character. Three weeks prior to admission he dreamt that he had made a post-mortem examination of his wife's remains and removed all her viscera. After this he became very violent, threatening, and obstinate. Two days prior to his admission he recurred to the dream and said, "I have that post-mortem to make yet!" Since then he had been annoyed by visual hallucinations, "seeing the room full of men," and was very much excited, struggling with his imaginary assailants.

Diagnosis.—Syphilitic tumour of brain, with parietic dementia.

On admission.—*Physical condition.*—Patient is suffering from a cachexia, which has already resulted in advanced marasmus. The gait is tottering and the wasted limbs are ataxic in their movements. There is marked general tremor, and pronounced fibrillar twitching of the muscles of expression, which are also flattened. The patellar, plantar, and cremasteric reflexes are all exaggerated, and there is well-marked ankle clonus. Cutaneous sensibility much increased. Tongue clumsy and ataxic in its voluntary

movements; tremulous, indented, and flabby when at rest. The pupils are small, irregular, and unequal; sluggish in their response to direct consensual and light stimuli, and fixed to the sympathetic reflex. The movements for accommodation are spasmodic and ill-directed, the pupillary reaction being slow and incomplete. Absolute loss of smell. Sight normal. He is unable to hold a writing pen when placed between his fingers, likewise he fails in efforts to button or unbutton his clothes. On close examination the cicatrix of a chancre on the glans, the scar of a bubo in the groin, and traces of characteristic specific eruptions are detected. The respiration is quick and shallow, pulse small and feeble; tongue coated with a thick, dirty, creamy fur. His pronunciation is blurred and chippy. Voice is broken, resembling a hoarse whisper.

Mental state.—Patient stands or sits in an attitude of rapt attention, gazing fixedly into distance; his features set and immobile, the want of expression indicating dementia. He responded to questions in a low, awed, despondent voice, saying as few words as possible to express his meaning. Now and again he shook his head hopelessly, and repeated in a tone pregnant with despair, "I am done. A bad business. I am done." When put to bed his tremor increased, and a few minutes later he was seized with a slight epileptiform convulsion, during which he passed water involuntarily. Scrambling out of bed with repeated clumsy efforts he remained with outstretched feet, swaying to and fro, trembling violently all over, and almost unconscious of his surroundings.

Progress of case.—For twelve days following there was rapid mental and physical deterioration. He sat all day in one place, limbs all flexed, neck craned forwards, eyes gazing into the distance, and expression that of intent listening. He could be roused with great difficulty from this state, and he could not tell day of week, month, or year; but gave details of imaginary events of the previous day; of his supposed walks, visitors, and other doings. On the 12th March he had a violent epileptiform seizure, the convulsions causing him to fall out of bed. This was followed by an increase of the dementia; he could no longer respond to questions, nor could his attention be fixed. While confined to bed he lay in a state of general flexion; there was marked rigidity of the limbs, tendency to acute bed-sores, spasmodic masticatory and swallowing movements, and almost constant grinding of the teeth. The reflexes became more exaggerated, and general hyperæsthesia was well marked. On the 30th March bullæ formed over the metatarso-phalangeal articulation of the left foot, followed next day by an acute diffused erythema extending to the knee. Three days later the bullæ burst, and exposed a sinus leading down to diseased bone, and giving exit to exceeding foul pus. The sinus was enlarged and dressed antiseptically, with the result that the

diffuse inflammation subsided, and healed on discharging some dead bone, but repair was slow. Meanwhile there was a very marked remission of the dementia, he became bright, answered questions readily, and even volunteered remarks. Gradually, however, his expression became more and more "wiped out;" general and facial tremor increased, yet on the 26th April he was noticed to have spoken more intelligently than previously. Control over the bladder was impaired, and he was out of bed and rolling about the bedclothes at night. On the 30th he had slight but frequent epileptiform seizures, after which his expression became suddenly exceedingly fatuous; he could not be induced to speak, and his tongue when protruded was deviated to the right side. On the 1st and 5th of May he had several slight epileptiform and syn-copal seizures and became alarmingly weak. Mentally he was mute, fearful, and emotional. He remained in this state until 8 o'clock p.m. on the 7th, when he was seized with epileptiform convulsions. The left side became rigid, the right relaxed; lower jaw drawn down and back; tongue projected and directed to right side; strings of thick mucus hanging from the mouth; pupils dilated and insensible to light; plantar reflexes absent; temperature rose suddenly from normal point to 102°; pulse 80, small and compressible; conjugate deviation of head and eyes to the left side. He died at 11 o'clock same night, six years from the date on which he contracted syphilis, one year after the appearance of the first mental symptoms, and ten weeks from the first convulsive seizure and committal to the asylum.

Post-mortem examination.—By the express injunction of the relatives this was unfortunately limited to the cranial cavity.

Scalp and calvaria normal. No adhesion or thickening of membranes over the vertex, but vessels of the pia mater were engorged. The convolutions were normal in appearance, their configuration being particularly well defined, the membranes being readily separated from them. On the under surface of the brain, over the region of the right inferior frontal convolutions, the dura mater seemed adherent to the brain surface, and also to the bone beneath. On separation from the latter, which was normal in appearance, the condition was found to be due to the presence of a firm tumour embedded in the substance of the brain; its base rather pear-shaped, pressing on the orbital surface of the frontal bone. It bridged obliquely across the tri-radiate fixture, receiving in its caudal and external end the roots of the olfactory tract; the remains of the olfactory bulb were contained in the rounded and distal extremity. The dura mater was closely adherent to the presenting base, forming a dense fibrous floor for the support of the tumour. This condition contrasted markedly with the freedom of the membranes from attachment in any other region. On removing the tumour from the nest of congested and partly softened cerebral matter in which it lay, it was found to be about

the size and shape of a small walnut. It presented all the usual characteristic appearances of a syphilitic gumma.

Remarks.—Apart from its resemblance in every detail to the classic cases of gummatous cerebral growths (recorded by Lancereaux and others) associated with mental disorder and paralysis, some special points of interest may be briefly mentioned.

(a.) In the absence of any history the case when it first came under notice would have seemed identical with "general paralysis" of non-specific origin. The advanced dementia rendered it very difficult to test smell, and even when discovered that the sense was lost, the fact would probably be attributed to widespread rather than a very circumscribed brain lesion.

(b.) The fact that hallucinations of taste set in soon after the anosmia would point in this case of local cerebral disease to the close proximity of the cortical areas for the senses engaged—a point yet unsettled by physiologists. The left olfactory bulb, though *apparently* healthy, was quite inactive, the patient having had complete loss of smell. It is probable the destructive lesions were propagated into the centric origins of the nerve roots.

(c.) The association of spastic spinal symptoms with frequency of fits and mode of termination indicates very probably degeneration of the pyramidal tracts of the cord. This, unfortunately, could not be determined. Were it demonstrated it would prove the co-existence of the two classes of cases which Savage terms "true general paralysis of local (syphilitic) cerebral origin," and "general paralysis of syphilitic origin, with spastic spinal symptoms."

(d.) Prior to the development of the characteristic "hemisrania" the pain of an intense neuralgic kind was referred to a spot a little in front of the tip of the right ear, the patient sometimes introducing his finger into the mouth and pointing upwards to indicate its centric situation. Had the case been seen at this stage it might have given way to brisk specific treatment, which could not overtake the ravages the disease had made when it came under notice.

Notes on a Case of Acute Insanity with Sexual Perversion. By
WILLIAM C. SULLIVAN, M.B., Clinical Assistant, Richmond Asylum, Dublin.

The case which, by the kind permission of my chief, Dr. Conolly Norman, I am enabled to bring under your notice to-day, is one of acute insanity occurring in a male adolescent, and marked in its course by the somewhat unusual symptom of sexual perversion.

Patient, J. D., a youth of 21 years. No insane or criminal heredity; suffered three years ago from an attack of post-febrile melancholia, with hysterical symptoms, from which he made a good recovery. From that time up to onset of present attack enjoyed good mental health; was not addicted to masturbation, but indulged in sexual intercourse. For some two months before admission had been intemperate.

Present attack, commencing with excitement, passed into depression, verging upon stupor, in which condition patient was admitted to the Richmond Asylum July 4th, 1892, presenting at this time the usual symptoms of deep melancholia. His genitalia were normally developed, but his expression is noted as effeminate, and the prominence of the pomum Adami was absent, partly owing to hypertrophy of thyroid. Patient masturbated constantly.

Throughout July the case presented the appearance of an ordinary melancholic attack, with numerous hysteroid symptoms.

In August it is noted:—"Patient seems a little brighter. Appears to have developed amorous feelings towards one of the officers, Mr. X., gazing at him ecstatically, following him about, and declaring that he 'loves' him. Questioning patient elicits that the feelings aroused are of a sexual nature." This condition lasted about three weeks, passing off gradually as the other mental symptoms improved.

On September 3rd it is noted:—"Patient has now quite recovered, and is able to give a clear account of his mental state during attack. . . . Confirms statement that his feelings towards Mr. X. were of the above-mentioned nature; such feelings were also excited by sight of certain of his fellow patients. . . . During his illness patient had suffered from frequent attacks of globus hystericus, followed by polyuria and profuse sweating."

Remarks.—From this clinical history it will be observed that the condition of perverted sexual feeling was merely an episode in the melancholic attack. The patient, while in mental health, had no unnatural desires, and in all probability was not in the habit of masturbating; but only in his disease he develops this habit, and subsequently manifests feelings of sexual perversion—a sequence of symptoms which rather suggests a relationship of cause and effect between the masturbation and the perversion.

If such a relationship be admitted, this case would go to support the view that ordinary cases of sexual perversion may originate by a similar evolution, and that they are not necessarily the result of any innate condition.

Hypertrophy of the Scalp in a Lunatic. By Dr. POGGI.
(Communicated by Dr. McDOWALL, Morpeth.)*

The subject who presented this anomaly of development of the scalp was M. B., aged 66, a peasant woman from the province of Comasca. Of medium height, regular conformation of body, dark complexion, irides dark chestnut, thick and black eyebrows, hair thick, strong, black, with only a few white ones, notwithstanding her advanced age. Her mother, a brother, and a sister have been insane. She suffered some years ago from puerperal mania, and was finally admitted to the asylum at Como labouring under simple lypemania, on 25th March, 1884. She died suddenly from syncope on the 27th of the same month. The autopsy revealed advanced fatty degeneration of the heart and liver.

The scalp covering the posterior and part of the upper portion of the head is much thickened, and presents numerous and deep furrows in a transverse direction, curved, with the concavity upwards, produced by thick elevations of the skin, which seems hypertrophied.

These folds and the resulting furrows are arranged with a certain amount of symmetry round a furrow which may be considered *central*, running in a straight line from back to front, and starting at the vertex, follows the direction of the sagittal suture for a distance of five centimetres, and has a depth of about three millimetres. Round this upper central furrow goes a second, which, from being cut off in front at the level of the anterior stem of the central furrow, has the shape of a U, and limits a fold of about one centimetre in breadth. This first

* Dr. Kurella, of Brieg Asylum, Breslau, was kind enough to bring this case under my notice.

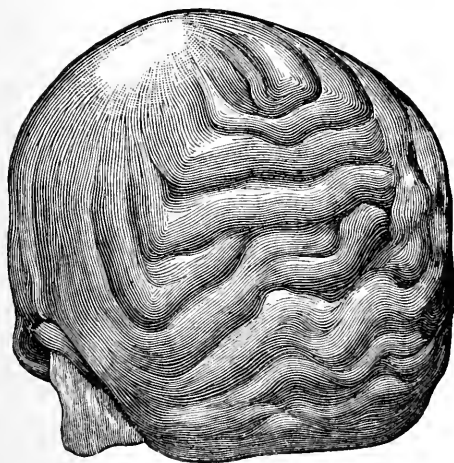
fold is in its turn similarly surrounded by a second, the second by a third, and thus five others follow, always concentrically—altogether eight folds covering the whole posterior portion of the head.

The regularity of these furrows is only partially interrupted between the fifth and sixth folds by the existence of some connecting folds at that spot.

The folds gradually become more voluminous from above downwards, so that whereas the first, as before mentioned, is only one centimetre broad, the lower ones measure two centimetres. The same is true as to the depth of the furrows, which is greater in the lower portion. The greatest depth is in the middle line, and gradually diminishes, disappearing at the upper and lateral parts of the head.

The skin of the folds reaches a thickness of twelve millimetres, that of the furrows four millimetres.

The rough, coarse, and abundant hair followed the various directions of the folds, and grew even on the lateral and most hidden portions into the deepest part of the furrows.



To this very rare anomaly of the scalp, which gave the outside of the head the appearance of a brain, there was no corresponding important alteration either in the bones, the meninges, or brain; nor were there special adhesions between the skin and the periosteum, which might have caused such a genuine hypertrophy of the skin as to force it into folds. Further, this anomaly having existed from youth, cannot be attributed to tugging by combing, and we must consider it congenital.

I must further refer to the skull, the cephalic index of which was 76.5. It presented traces of the lambdoidal and sagittal sutures, and a slight superior occipito-parietal platycephaly. The occipital convolutions of the external surface of the brain, two in number, were very voluminous, not much convoluted, but rather simple in configuration. The lower posterior terminal branch of each calcarine fissure was wanting. Each calcarine fissure ended in a single sulcus; the right one turned obliquely upwards, and the left continued transversely, for two centimetres, to the superior occipital surface.—(From the “*Archivio di Psichiatria*,” v., f. 2-3, 1884. Torino.)

OCCASIONAL NOTES OF THE QUARTER.

Mr. Irving's “Lear.”

Shakespeare so clearly held up the mirror to nature that every special student finds his specialty recognized by the great dramatist. We do not for a moment suppose that Shakespeare made a prolonged study of the insane or of the mental defects associated with senility, yet when he came to portray a weak-minded old man his observation in no way misled him, and we have in his *Lear* one of the most masterly descriptions of a demented king that any literature, whether special or general, can provide.

Lear and *Hamlet* have been particularly looked upon as psychological studies, and they will ever provide food for further investigation. Here we are chiefly concerned with a particular actor's representation of one character. We do not think with many—particularly German critics—that Shakespeare is for the study and not for the theatre. We should rather say he is for the theatre as well as for the study, as much as the Bible is for the church and for the closet.

We can add little to the criticism of the play itself, or to the morbid psychology of *Lear*. These subjects have been considered and reconsidered till they form a literature of their own. Dr. Bucknill, in 1859, published in his “*Psychology of Shakespeare*” a very careful study of King *Lear*, and we would strongly recommend our readers to consult this essay. Dr. Bucknill recognized, as a practical psychiatric physician, that *Lear's* reason was tottering before his daughters' misconduct produced a further de-

gradation of mind. It seems strange that so few appear to have fully recognized this, and by some reviewers of Irving's acting his recognizing this has been looked upon as a discovery of his.

At the very outset Irving represents Lear as restless, irritable, boisterous, and beside himself. The mannerisms of the actor are marked in the earlier scenes, but either they are suppressed by the actor himself, or are so masked by his deeply pathetic acting in the later scenes that they can give offence to no one; Irving becomes the fierce, generous King, who, having always acted in a headstrong way, as he loses self-control, becomes more and more headstrong and wilful.

Perhaps the boisterousness of the first part is a little overdone, but it makes a very fine contrast to the misery, at first half-dumb, then incoherently voluble, of the old man who had discovered himself to be a fool. The eloquence of Lear and his prolonged speeches have at times been looked upon as being inconsistent with senile decay.

We, on the other hand, know that eloquence in old age may outlast judgment, and may be associated with varying degrees of moral and intellectual or sensory defects. Lear is represented by Irving as being in a great hurry, being restless and anxious to get rid of all his worries and to have a good and easy time. He is certainly "made up"—to our thinking—rather too old, and it is astonishing to the spectator to see the physical energy of one so aged. In the scenes where Lear discovers that he is deceived by his daughters, Irving very finely represents the slow growth of his doubt of Goneril and Regan, and his equally slow appreciation of Cordelia. The scenes with Kent, with Gloster, and with the Fool are all that could be desired. The King, formerly so exacting, is seen to be losing his grip of the world; he is passionate, but doubtful; at one moment tolerant of what appears to be insolence, and in the next passionate at ingratitude. We cannot go into each scene, but must pass on to the shock of the death of Cordelia. The old man, with tottering mind, is rendered insane by the griefs and worries produced by his daughters; then the deeper grief of the sense of his ill-treatment of his youngest daughter and of her death produce a temporary return of reason before the end. Irving does not over-act here; the restoration of reason is felt to be a passing change, and one is led to see the beautiful reconciliation of father and child in death.

Irving's death scene is pathetic and natural, and is without the ghastly realism which the French stage has used us to.

The whole character is well maintained, and we look upon Irving's *Lear* as one of the representations which will live in the history of the stage.

We may, perhaps, add one or two points on the play itself.

First, we have frequently been struck by the great increase of appetite and, apparently, of digestion which may occur with senility. Shakespeare represents *Lear* as being very hungry. "Let me not stay a jot for dinner. Go, get it ready. Dinner, ho, dinner!" This is probably of little moment, but we think it is another point showing the precise knowledge of the poet. We have a recollection of a proverb to the following effect: "Give a thing, take a thing, an old man's plaything." We should like to know the source of this; it represents *Lear's* frame of mind, and we have met with at least one case in which a man of near 80 gave away his property to his heirs, and then accused them of stealing it and of neglecting him. We have looked for signs of loss of recent memory in *Lear*, and have not found them, though we should have expected them.

There are several points in reference to the daughter's conduct which need notice. First, *Cordelia*, knowing as she did her father's mental weakness, had no business to behave as she did. In Shakespeare's time, beside punishing the insane, it was considered necessary to humour them, and we have always thought that *Kate*, in "*Taming the Shrew*," really was not so weak as supposed, but was acquiescing in what she supposed to be the delusions of a lunatic.

Cordelia ought to have known this much, and ought not to have thwarted her old doting father. We are inclined to think that she was the child of old age, and was probably rather weak mentally herself.

Then as to the other daughters we do not intend to whitewash them, but anyone who has had much to do with senile demented knows that such people upset ordinary households enough, and that in a semi-barbarous court they would be not only intolerable, but they would lead to brawls and license such as *Goneril* describes.

"Every hour he flashes into one gross crime or another,
That sets us all at odds. I'll not endure it."

"His knights grow riotous," etc. In this passage, too, is

the only suggestion that in Lear, as in many old men, there may have been uncontrolled lust. "One gross crime to another" might easily bear this interpretation. The foolish old man divided his property in the degenerately generous way, only to regret it; when he finds his personal importance lessened, he loses rapidly more self-control with each fresh buffet of misfortune, and passes away naturally enough.

In the play we have also the natural fool and the pretended lunatic, and we think all the parts were well taken, and the characters sustained, but as we really only intended to refer to Irving we must refrain from further comments.

Roe v. Nix.

The facts of this remarkable and extremely narrow case, which was tried by Mr. Justice Gorell Barnes and a special jury, at the close of last year, are too fresh in the minds of our readers to require or to justify recapitulation at any length, and it may suffice to state that the point at issue was whether certain testamentary documents executed by a Chancery lunatic, Miss Ellen Roe, were or were not vitiated by the alleged mental unsoundness of the testatrix. The evidence was very evenly balanced. On the one hand, Miss Ellen Roe had been found lunatic by inquisition; no super-sedeas had been obtained. The Lord Chancellor's visitors were of opinion that she did not possess testamentary capacity at the critical period; the deceased lady had proposed to bequeath her property to the Dean of Norwich, and to leave legacies to the Archbishop of Canterbury and the Lord Chancellor, and a strong effort was made to show that she was under the influence of an insane aversion towards her sisters, and that the case, therefore, came within the *ratio decidendi* of *Dew v. Clark* and similar authorities. On the other hand, it was contended, and evidence was adduced to prove, that the only form of insanity from which Miss Roe had ever suffered was temporary alcoholism, and that her aversion to her sisters was at first merely the indifference caused by long absence from home, and afterwards the dislike which the inmate of an asylum is apt to feel to the persons whom she supposes to have put her there. It was also proved that one of the Chancery Visitors had expressed an opinion that Miss Roe

might be allowed to make a will—although, of course, without undertaking to say that it would be valid—and that the actual preparation and execution of the disputed instrument were preceded and accompanied by every possible precaution on the part of testatrix's solicitor. In the event the jury pronounced in favour of Miss Roe's testamentary capacity—a conclusion at which we might not perhaps have been able to arrive—but which it was perfectly possible for reasonable men to adopt under the circumstances, and the verdict was received in Court with the popular applause which the judicial obliteration of the stigma of insanity never fails to elicit. The course of this case was seriously impeded by the fact that all the reports of the Chancery Visitors with regard to Miss Roe were presumably destroyed at her death, and, at any rate, were not forthcoming for the purposes of the trial. We trust that Section 186 of the Lunacy Act, 1890, which renders this absurdity possible and lawful, will receive the early attention of the Legislature.

Morley v. Loughnan.

The case of *Morley v. Loughnan* is equally interesting to the student of human nature, the lawyer, and the psychologist. The details of the strange and painful story on which it turned are, no doubt, familiar to our readers, but a sketch of the salient features may not be inopportune. The late Mr. Henry Morley, from whom the defendant, Mr. W. H. Loughnan, a prominent member of the Close Sect of Plymouth Brethren, was alleged to have obtained sums of money, amounting to about £140,000, by undue influence, was an epileptic, possessed the exaggerated warmth of sentiment, the liability to alternate depression and elation, and the need for external guidance, which epileptics frequently display, and though not positively insane, passed at least the greater portion of his life on the borderland between the world of sane men and the realm of minds diseased. Conscious of the risks to which his son's mental condition exposed his substantial fortune, Mr. Morley's father had placed him under the friendly control of "companions;" and, when the narrative opens, this desirable appointment had just fallen to the lot of Mr. W. H. Loughnan. In the creed of the Close Sect of Plymouth

Brethren the duties of entire dedication of property to religious purposes and sequestration from worldly society hold a cardinal place, and Mr. Loughnan laboured faithfully, and not without success, to imprint them upon the mind of his impressionable ward. At no time, however, was the balance between these great principles very accurately adjusted in Mr. Loughnan's teaching. At first the duty of dedication received excessive prominence, and Mr. Morley was dramatically asked whether the luxury with which he was surrounded was worthy of a disciple of Christ. Then the duty of sequestration became the lesson of the hour, and the imperative claims of dedication were somewhat feebly insisted on. At length Mr. Morley, after having written a letter of farewell to the world, went to live with his protector. Mr. Loughnan lent himself nobly to the task of making his self-invited guest's seclusion from temporalities complete, managing his business, conducting his correspondence, accepting large donations from his superabundant wealth, and drawing around him a close cordon of associations, corroborative of his own influence, from which Mr. Morley was only released by the hand of death. Then it appeared that Mr. Loughnan had benefited by his ward's weak generosity to the extent of £140,000, and the executors of the deceased gentleman properly subjected the nature of the relationship that had existed between Mr. Morley and his "companion" to the searching scrutiny of the Chancery Division. Into the miserable devices by which Mr. Loughnan endeavoured to resist first, the executor's claim, and, secondly, the exposure which its prosecution involved, we need not enter. Suffice it to say that Mr. Justice Wright, sitting as an additional judge of the Chancery Division, held that the gifts from Mr. Morley to the defendant were vitiated by the undue influence of the latter, and that the plaintiffs were entitled to receive the whole amount from him, and even from the innocent subdonees into whose hands part of the spoil had passed. We observe with surprise the statement in the pages of a legal contemporary that "this case presented no new legal difficulties." The inaccuracy of this assertion is readily demonstrable. There are two classes of cases in which donations are set aside on the ground of undue influence; first, cases in which there is positive evidence that coercion has been brought to bear upon the donor; secondly, cases in which there existed a relation between the donor and the donee, capable of giving, and

calculated to give rise to undue influence, and the donee is unable to prove affirmatively that the donor had independent advice. Mr. Justice Wright held that in the case of *Morley v. Loughnan* there was positive proof of undue influence having been exercised. But his lordship was also prepared to hold, if necessary, that the relation between Mr. Morley and Loughnan was such a relation as brought the defendant within the second class of cases above referred to, and threw upon him the onus—which he had utterly failed to discharge—of vindicating the voluntary character of the gifts. This, if we mistake not, is a distinct advance upon previous decisions, and it will render the law of undue influence for the future much more difficult of evasion than it has been in the past.

Compulsory Legislation for Habitual Drunkards.

In the year 1890 the late Dr. Henry Monro sketched the following suggestions for a petition to Parliament on the subject of habitual intemperance.

Compulsory powers required.—That medical men should sign a statement that they consider certain forms of inebriety the result of *disease*, and consequently that such cases need the only remedy which is likely to prove of any real benefit, viz., *compulsory* seclusion in retreats or homes suitable for their treatment and cure.

Voluntary seclusion inadequate.—The present law permitting *voluntary* seclusion is almost useless, as persons suffering from the disease have a wholly *enervated will*, and are, in consequence, usually incapable of the resolution necessary to take any such steps of their own accord, for the purposes of their own cure, however much they may desire from time to time to escape from the overpowering impulse towards alcohol.

Method of certifying.—We would therefore earnestly entreat for legislation on the special point of *compulsory* seclusion under some such provisions as the following:—

We would suggest that one member of the family of the inebriate (or two if deemed more desirable) should “request,” two medical men should “certify,” and some judicial authority should be instituted, say a Commissioner for Intemperance, or Magistrate, or any other officially appointed person, to “authorize” any such certificate for seclusion.

Objection to ordinary lunatic asylums.—We do not deem it desirable for the ordinary lunatic asylum to be assigned for the reception of these cases, “as, though such persons have lost

ordinary moral control as regards alcohol, they are not deemed insane in other matters."

The kind of retreats desirable.—We think that retreats for these cases should be *public* institutions, managed by Committees possibly; but under medical care analogous to the existing lunatic hospitals (payment being made by those capable of payment); and it might be advisable further to suggest that the same certificates should cover the seclusion in private houses, if more acceptable to the relations of the inebriate.

Period of detention and leave of absence clause.—We would further suggest that the period of time covered by these certificates should in no case be less than one twelvemonth; though fixed periods of absence might be granted during that time, at the discretion of the medical officer of the institution, on *probation*, as is permitted by the Lunacy Laws, provision being made for the *immediate* recall of such patient upon the least breakdown prior to the specified time for the return of the case.

Security for sufferers under this disease.—We cannot help believing that with some such provisions as those suggested above, all possibility of any acts of injustice would be avoided, and a means of cure provided for a daily increasing disease which it is impossible for the medical profession to treat effectively without the support of the State.

It has been thought well to carry out these suggestions, the essential feature of which is the *compulsory* instead of the voluntary seclusion of inebriates whose lamentable habits are due to disease. An opportunity for making an effort in this direction has occurred, in consequence of a Departmental Committee having been appointed by the Home Office. This Committee not having closed its sittings, a memorial was drawn up for presentation to this Committee, and a number of influential signatures were obtained in support of its prayer. We think it well to place it on record in the pages of this Journal, and trust that no long time will elapse before compulsory restraint will become legal, at once for the benefit of the inebriate, and in order to mitigate the intolerable misery from which his family, in countless instances, suffers.

Copy of the Memorial.

We, the undersigned, members of the medical profession, having had experience of the great difficulty which now exists in dealing with inebriates, respectfully urge upon the Committee the pressing need of further legislation concerning them.

At present provision is made to a very limited extent by the Inebriates' Acts, the essential feature of which is that a person

may place himself under restraint for a period not exceeding a twelvemonth. This has been found to be of limited value, the proportion of persons, especially ladies, who will go before magistrates and voluntarily place themselves under restraint is small, and we think that unless the clause is repealed which requires appearance before two Justices, the Acts will remain of little value.

We earnestly desire the compulsory restraint, with all proper safeguards, of those men and women who cannot control themselves in this respect. We are of opinion that much good may be done to inebriates, if compulsory detention can be enforced for a sufficient time, and if upon release and subsequent breakdown, they can again be placed under control without delay or difficulty.

	M.D., F.R.C.P.	James Paget,	F.R.C.S.
William Jenner,		John Eric Erichsen,	
Henry W. Acland	" "	William S. Savory,	" "
George Johnson	" "	G. M. Humphry,	" "
Richard Quain,	" "	J. Spencer Wells,	" "
Edward H. Sieveking,	" "	Henry Thompson,	" "
William Munk,	" "	Thomas Smith,	" "
Alfred B. Garrod,	" "	Alfred Willett,	" "
John W. Ogle,	" "	William MacCormac,	" "
Samuel Wilks,	" "	John Langton,	" "
John S. Bristowe,	" "	Howard Marsh,	" "
Charles J. Hare,	" "	Harrison Cripps,	" "
J. Russell Reynolds,	" "	F. H. Champneys,	M.D., F.R.C.P.
W. O. Priestley,	" "	James Sawyer,	" "
George Harley,	" "	William Carter,	" "
B. W. Richardson,	" "	J. Gilbert Smith,	" "
George Buchanan,	" "	J. A. Ormerod,	" "
J. Andrew,	" "	Samuel West,	" "
C. Lockhart Robertson,	" "	G. H. Savage,	" "
E. Symes Thompson,	" "	J. Kingston Fowler,	" "
J. Langdon-Down,	" "	G. A. Heron,	" "
G. Fielding Blandford,	" "	William Vawdry Lush,	" "
W. H. Broadbent,	" "	Theodore Dyke Acland,	" "
W. S. Playfair,	" "	J. Rayner W. Batten,	" "
W. S. Church,	" "	R. Percy Smith,	" "
W. B. Cheadle,	" "	Archibald E. Garrod,	" "
Dyce Duckworth,	" "	George Danford Thomas,	M.D.
J. Fayer,	" "	Arthur P. Luff,	" "
Peter Eade,	" "	Robert Baker,	" "
Thomas Buzzard,	" "	Norman Kerr,	" "
R. Douglas Powell,	" "	W. A. Brailey,	" "
J. Frank Payne,	" "	J. O. Adams,	" "
Edward Liveing,	" "	Henry Rayner,	" "
W. Withers Moore,	" "	C. S. W. Cobbold,	" "
Robert Lee,	" "	Outterson Wood,	" "
T. Henry Green,	" "	Theo. B. Hyslop,	" "
D. Hack Tuke,	" "	W. R. Howard Ealing,	" "
T. Lauder Brunton,	" "	W. H. Blenkinsop,	" "
Charles Henry Ralfe,	" "	Edward J. Nix,	" "
Thomas Barlow,	" "	George Henty,	" "
Joseph Ewart,	" "	J. J. Atteridge,	" "

The Epileptic Colony.

It has hitherto been the rule in this country that epileptics should qualify as lunatics before they could find a home. The usual charitable institutions were for the most part closed against them, and, save a few special hospitals, no other place of rest could be found for them. Those "subject to epileptic fits" are, by the rules of many homes, excluded from them. Want of employment and the consequent worries of poverty aggravate their malady, and the utter helplessness of their condition leads to despondency and hastens their descent towards dementia. According to Edith Sellers, in a paper in "The Medical Magazine" for February, who quotes the recently published statistics of the Charity Organization Society, there are nearly 78,000 epileptics in Great Britain, and 39,000 of these are still in the full possession of their reason. Now it is a fact that the condition of life most calculated to ward off epileptic attacks is that of healthy occupation, and, under ordinary circumstances, this is the most difficult to obtain. Thus the scheme so ably advocated at the Mansion House, at a meeting* presided over by the Lord Mayor, for the purpose of founding a home for those necessitous epileptics who are able and willing to work, meets an urgent and ever-growing want. The importance of such a scheme it would be difficult to over-estimate; it is a reasonable one, and it is based, to a great extent, upon the successful colony established at Bielefeld, in Westphalia. It is proposed to secure an estate of 100 acres within fifty miles of London, easy of access, where additional land may be procured when required, and to erect upon it appropriate buildings. Through the munificence of Mr. Passmore Edwards, the necessary funds for the purchase of the land and erection of the buildings are promised, and an encouraging amount of support from other quarters has been given.

In the early days of the colony simplicity will be the rule, and the occupation provided will take the form of farm and garden work, which is at once easy and healthy. Gradually, as the scheme develops, other and more varied occupations will be provided suitable to the more delicate members of the community, thus monotony will be averted, and in suitable workshops and in all weathers there will be work going on. It is not intended to confine the benefits of the colony to the

* Jan. 25, 1893.

necessitous poor. Wealthy cases will be provided for and freely admitted, for the terms they will pay will be high, and will procure for them comfortable and even luxurious quarters, so that the profits arising from their payments will go towards defraying the cost of the poorer inmates. To a great extent it is expected the colony will become self-supporting.

We heartily wish the scheme all the success it most rightly deserves.

Saint Amable.

During a holiday visit to the Auvergne last autumn we visited the quaint little town of Riom, which has, as we shall see, a certain interest for the alienist. It has always been a rival to the more flourishing city of Clermont Ferrand, and although it has had to give place to Clermont as capital of the district, it still retains the Courts of Appeal for the whole neighbourhood. By this means the town continues to hold its own and keeps some of its past importance, although at the present time it can only boast of a population of some ten thousand persons.

The first object which attracts one's attention on entering Riom from the Railway Station is the long façade of the Courts of Justice, built on the spot where in the 14th century once stood the Palace of John of France, Duke of Berry and Auvergne. Nothing, however, remains of the original building but the beautiful little Sainte Chapelle, with its 15th century windows.

Passing into the main street we noticed several houses of the 15th and 16th centuries, with fine sculptured fronts, also a belfry tower of the time of Francis I. Continuing our route we reach on our right the Church of Saint Amable, first consecrated in 1120, and retaining three apsidal chapels of the 12th or 13th century, and a triple 12th century nave, which was, however, reconstructed during the last century. The choir, transepts, and spire were rebuilt in 1859. It is not so much, however, with the church we have to do, as with the Saint to whom the church is dedicated. He is represented to have had the power of healing sick people, but more especially those who were insane. We cannot do better than quote from a book by Monsieur Bernet-Rollande a few further particulars of his life and work:—

“According to tradition a chapel, or perhaps a church, existed in Riom at the beginning of the 5th century, dedicated to Saint Gervais and Saint Protas—twin brothers—who received the palm of martyrdom at Milan in the days of the persecution of Nero. It is in this church that we like to picture to ourselves a young man on his knees—Saint Amable, the future priest of Riom.

Gregory of Tours tells us that a priest of Riom existed, whose tomb in the 6th century was an object of universal devotion in the Auvergne. People made pilgrimages to it, and flocked thither at all the Christian feasts. After having prayed at this holy sepulchre sick people were relieved, those bitten by serpents were cured, and the ravings of maniacs were appeased."

The life of Saint Amable has been described in a manuscript preserved among the Archives of the Church, which is said to have been written in the 12th century by a priest of the name of Juste. From this manuscript it has been gathered that Saint Amable was born at a place called Chauvance, near Pontaumur, about the year 400, and that he was a member of an important family, which took its name from this locality. The house of Chauvance figures amongst the aristocracy of Auvergne in the middle ages, and was strengthened by an alliance with the house of La Rochebriant. However that may be, the name of Amable has been kept up from one generation to another in the house of La Rochebriant Chauvance, and the oldest member of it exercises the immemorial right of attending the *fête* of Saint Amable clad in canon's robes, and takes his place in the procession close to the shrine of the Saint, upon which he places his hand.

The village of Chauvance is marked to this day by a stone cross, called the Cross of Saint Amable (apparently of the 15th century), which is covered with carvings of little full-length figures, heraldic designs, and inscriptions, which latter, however, it is impossible to decipher. At some little distance from the cross an enormous block of stone is to be found, which has always been called Saint Amable's Rock, and which, tradition says, bears the mark of the Saint's foot.

In the district which lies between Chauvance and Riom the name of Amable has always been very widely known, and is given to girls as well as to boys, but it is not to be met with in other parts of the Auvergne.

During the 5th century a church dedicated to Saint Benigne was built close to the Sanctuary of Saint Gervais and Saint Protais. The general opinion is that Saint Amable built this church at his own expense, and this well accords with the idea that he belonged to a rich and influential family.

Juste's manuscript contains the following lines concerning the death and funeral rites of Saint Amable:—"Monseigneur Saint Amable of holy memory died the 1st of November, in the year 475, after the Passion of our Lord, in the days of Childéric, King of France. The news of his death spread from one part to another, and coming to the ears of the clergy and the faithful of the town, which we now call Clermont, they assembled with candles and torches at the funeral of the Saint. They were joined by a mass of people of all ages and conditions. They laid him to rest in the centre of the Church of Saint Benigne, which he had himself built. The

ceremony was most solemn and impressive, but its principal distinction lay in the number of miracles God performed on all those sick people—whatever the nature of their illness might be—who had the good fortune to touch the shroud of the illustrious dead.”

After mentioning the case of a man being cured who had been possessed by a demon, Juste goes on to narrate that “it is well known that if anyone has swallowed poison or any little venomous insect whilst eating, or drinking, or sleeping with his mouth open, there is an infallible cure in going to pray at the tomb of Saint Amable.”

Three or four ancient hymns are still extant in which the works, virtues, and miracles of Saint Amable are extolled. One line may be quoted here —

“Vous fuyez devant lui, feu, démon et serpent.”

An historian of the name of Chevalier, writing in 1700, gives the following account of a miracle worked by Saint Amable :—

“A lady of high degree had the misfortune to discover that all her children were bewitched through the wickedness of one of her servants. These children appeared to be possessed by a demon which sometimes flung them into the air. Their pitiable condition was much augmented by their tender age—the eldest boy being only seven or eight years old. The unhappy mother, finding no help on earth, implored that of heaven. God heard her prayer favourably. A young monk, who knew of the power of Saint Amable, advised her to visit the shrine of the Saint. She received this advice with great joy, and made a vow to visit Riom with her children. To lose no time, however, she had mass celebrated in the chapel of her castle, and her intention made known. As soon as the words were spoken to these poor afflicted children—‘O Mon Dieu, voyez, voyez un si joli Saint’—they were immediately free from the spell which had been cast over them, and were themselves once more. Their mother, full of gratitude, and anxious to fulfil her vow, travelled to Riom—a distance of full twenty leagues. As soon as they entered the Church of Saint Amable, these children, seeing an image erected above the table where the holy relics were exposed, at once recognized their deliverer, and said to their mother, ‘See, here is the Saint who healed us.’”

Not a vestige now remains of the Church of Saint Benigne, “but we may reasonably suppose,” says M. Bernet-Rollande, “that the present Church of Saint Amable is built over the original spot. Saint Amable still watches over the ancient town, and every year, on the Sunday which follows the 11th of June, the shrine, which contains the relics of the Saint, is carried in procession by twelve husbandmen or vine-dressers, clothed in white, after the custom of their ancestors.”

From a trustworthy source we gather a few more particulars of psychological interest:—

“Every year on the Sunday following the 11th of June the *fête* of Saint Amable is celebrated with great pomp. The people attribute to the relics of this Saint the virtue of curing the insane. On that day a numerous procession promenades the streets. Peasants from the surrounding districts arrive in large numbers, dressed in the ancient costume of the Brayands, which consists of a vest, breeches, and gaiters of white woollen material and a huge cocked hat. Some of them carry the Saint, and others a huge wheel, profusely decorated with flowers, which, whilst it is being carried, revolves constantly on its axis. During the procession the insane are made to walk under it, and by that process are supposed to recover their minds.”

PART II.—REVIEWS.

Lectures on Mental Diseases designed especially for Medical Students and General Practitioners. By HENRY PUTNAM STEARNS, A.M., M.D. With illustrations. Philadelphia, 1893.

Any publication proceeding from the Physician of the Hartford Retreat, Connecticut, is certain to be welcomed by all who are acquainted with his conscientious work in the field of medical practice to which he has devoted his best energies for so many years.

Dr. Stearns traverses the whole ground of psychological medicine in a methodical and exhaustive manner, beginning with the physical basis of thought, and proceeding to the study of hallucinations, illusions, imperative concepts, delusions, melancholia, mania, folie circulaire, dementia, adolescent insanity, senile insanity, climacteric insanity, puerperal insanity, epileptic and alcoholic insanity, general paralysis, and acute delirious insanity.

There is a chapter on the classification of mental diseases, which he admits must be tentative in the present state of our knowledge. The following is his own classification:—

A. Symptomatological.

1. Melancholia. 2. Mania. 3. Primary delusional insanity. 4. Folie circulaire. 5. Dementia.

B. Ætiological.

- | | | |
|--|---|-------------------------------------|
| 1. Epochal (Physiological). | { | Insanity of Puberty. |
| | | Climacteric Insanity. |
| | | Senile Insanity. |
| 2. Lymphatic (Sexual). | { | Puerperal Insanity. |
| | | Masturbatic Insanity. |
| | | Ovarian Insanity. |
| 3. Toxic. | { | Alcoholic Insanity. |
| | | Syphilitic Insanity. |
| 4. Neuropathic. | { | Epileptic Insanity. |
| | | Hysterical Insanity. |
| 5. Pathological. | { | General Paralysis. |
| | | Insanity from Coarse Brain Disease. |
| | | Acute Delirium (Typhomania). |
| 6. Other less frequent genera and species. | { | Phthisical Insanity. |
| | | Rheumatic Insanity. |
| | | Post Febrile Insanity. |

It is difficult to know what to extract from a work containing so much that was interesting. We cannot, however, pass over the author's opinion in regard to the term "paranoia." He observes:—"It is certainly difficult to understand on what principles of nomenclature this term can be applied to any genus of insanity. If the purpose was to substitute a Greek word for one derived from the latter, and by its use avoid the English term insanity altogether as the name of an order of disease, all would be plain enough; but no such purpose exists. We have the term insanity as descriptive of a class or order of disease, and we are now seeking a name for a particular genus of that order, and it becomes obvious at once that a name which comprehends all that is understood by the name of the class or order under which it is to be arranged, will convey, not only no accuracy as to what is named, but is eminently misleading. It certainly has relations neither with a symptomatological, pathological, physiological, or ætiological basis of nomenclature, nor has it even the merit of a neutral character, as is the case when forms of disease are named after the discoverers, as Gower's disease, Addison's disease, etc."

We heartily endorse this opinion, and are glad that so high an authority should have expressed himself in such unmistakable terms.

For the term "Monomania" Dr. Stearns suggests the phrase "Primary Delusional Insanity."

The author refers to a subject which has led to some difference of opinion in our own country—whether insanity following surgical operations is due to shock or the anæsthetic employed. Dr. Stearns observes that “in the majority of surgical cases the insanity seems to develop before a condition of anæmia and perverted nutrition has become established, and it becomes necessary to look for other causes. These may be found in the depressing influence upon the nervous system of very sensitive persons which the anticipation of an operation produces, the shock which is more or less profound according to the nature of the operation, and the subsequent uncertainty of a successful issue. The importance of this last factor must be considerable in some cases. Indeed, it has often been observed that cases not followed by the development of insanity do well or otherwise largely as the element of expectancy and hope predominates in the mind of the subject. In my own experience I have never known of a case of systematized insanity which apparently resulted from the use of anæsthetics; and after surgical operations of a severe nature, insanity as a sequence is certainly rare. Therefore other ætiological factors must exist in the majority of such cases.”

Dr. Stearns cites from von Frank Hochwart 31 cases of mental disorders following operations on the eye, divided into four groups—1st. Hallucinations (confusional insanity); 2nd. Simple confusional insanity in old people; 3rd. Psychoses in chronic alcoholism; 4th. Cases of confusional insanity in very marasmic individuals, with other intercurrent somatic diseases with fatal termination. It is Hochwart's opinion that mental disorder is more frequent after eye-operations than any other.

We must content ourselves with a very inadequate notice of this work, and with cordially recommending it to our readers.

Introduction to Physiological Psychology. By Dr. THEODOR ZIEHEN, Professor in Jena. Translated by C. C. VAN LIEW and Dr. OTTO BEYER. Illustrated. London: Sonnenschein. 1892. Pp. 277.

This is a translation of Prof. Ziehen's “*Leitfaden der Physiologischen Psychologie*” (published in 1891), and we may say at once that to some extent it fills what is, or should have been, a long-felt want of the alienist. Unless we take

into account Ladd's large and in many respects excellent work, there was no book in English which presented in a concise and handy form any statement of that general science of experimental psychology of which medical psychology is but a branch. Dr. Ziehen's book is well fitted to fill the void for two reasons—he is in sympathy with the English associational tendencies in psychology (in opposition to Wundt's doctrines), and he was moved to take up the general study of physiological psychology by the problems that came to him in the course of medico-psychological work. Although not appealing exclusively to the physician, this book is especially intended for (as the translators call him) the “psychiater.”

Chapters I. and II. deal generally with the elements of psychic action. In Chapter III. we approach the important subject of stimulus and sensation. In the three following chapters the sensations of smell, taste, touch, sight, and hearing, their laws and measurement, are dealt with in detail. Weber's law is considered in three chapters, and Fechner's psycho-physical formula and the limits of its application are clearly discussed. A chapter follows on emotional tone, and the succession of sensations. The important subject of the transformation of sensations into conceptions, and the physiological basis of ideas is then dealt with. The three succeeding chapters are concerned with the laws of the association of ideas, with the rapidity of mental action, reaction times, etc., and with a discussion of attention, the ego, the physiological basis of memory and forgetfulness. A chapter follows on morbid thought, dreams, secondary sensations, hypnotism, illusions, and hallucinations. The book concludes with chapters on action, expression, speech, an analysis of the will, and a very clear statement of the various monistic and dualistic theories of mind and matter. The author's own position is described as a critical monism, resting on the fact that our first data are only those contained in the psychic series of phenomena.

The author possesses an experienced teacher's lucid and concise method of presentation, and (having clearly stated his sympathy with the English school and opposition to Wundt's theory of apperception) he discusses every question that arises in a fair and open-minded manner. It may, perhaps, be held that he sometimes accepts views of cerebral localization which are still *sub judice*, and he is certainly

hasty in concluding that because there can be no psychosis of the will the conception of moral insanity is untenable. The clinical phenomena of moral insanity may admit of more than one interpretation, but are not necessarily bound up with any theory of the will. On the whole it may be repeated that the book is one which will prove useful, and which can be warmly recommended. The old writers of metaphysical psychology, except as furnishing studies of human aberration, possess little interest for the medical psychologist. He has reason to be grateful to the modern and more scientific psychology of experiment which assigns to his own studies an honourable and essential place, and enables him to realize their significance.

It should be added that the book does not profess to be a practical manual, and the question of instruments, methods of psychological examination, etc., are not considered. In this respect the book may be supplemented by various articles in the "Dictionary of Psychological Medicine," especially by the important article on "Psycho-physical Methods."

We have compared the translation with the original text, and find that the translators have done their work in an accurate and satisfactory manner, although they do not write a very elegant or idiomatic English style. An index has been added to the translation.

La Pathologie des Emotions. Études Physiologiques et Cliniques. Par CH. FÉRÉ. Paris: Alcan. 1892. Pp. 605.

This is a large book, but it cannot be said that there is much unnecessary padding in it. From first to last it is filled with facts and observations drawn, not only from the stores of an erudition singularly rich with the ancient and modern science of many countries, but especially from the experiences of a clinical observer who has had ample opportunities of studying the physiology and pathology of emotional states.

The distinguishing characteristic of all Féré's work is—using the expression in by no means a hostile sense—the *physiological bias*. It is this which gives interest to the suggestive studies in his earlier and well-known book, "Sensation et Mouvement." He seeks to find the key to all

morbid states, physical or psychical, in normal physiological processes. He will not admit that any psychical state can be examined clinically except by physical methods. Until it is so examined he will not accept psychology as deserving of scientific consideration. In reference to Mercier's remark that as regards insanity medical men themselves are in the position of laymen, he observes that this is because the alienist has been too often content to deal merely with psychological entities which the ordinary medical man, trained in physiological methods, rightly refuses to recognize. This is, one fears, to pay too high a compliment to the ordinary medical man's scientific instincts. Still, it serves to indicate the author's attitude.

We may gain an idea of his method by glancing at the way in which he approaches the consideration of hysteria. He deals with it, we must note, in a chapter on "Insufficient or Excessive Physical Exercise," and points out that the hysterical resemble normal persons when under the influence of fatigue, proceeding to indicate various sensory and motor phenomena which are the same in both conditions. Hysteria he thus regards as a kind of chronic fatigue by which the individual is reduced to what Claude Bernard called the "*vie oscillante*"—a condition of abnormal subjection to the influences of the environment. Hysteria is a physical condition, hence the merely temporary benefits of treatment by mental suggestion, and the permanent benefits of such a method as that of Weir Mitchell, which restores the physical condition. "From my point of view," he goes on to remark, "to say that hysterical anæsthesia is not an organic malady, but a mental disease, a psychological disease, is a biological heresy. All mental diseases and all troubles of sensibility are dependent on organic troubles."

The same method characterizes the author's treatment of hallucinations, and the chapter dealing with this subject is entitled "The Physical Signs of Hallucinations." The alienist must study the external signs of hallucinations by the methods of the physiologist—observing attitudes, movements, and the permanent stigmata which such attitudes and movements produce on the muscular system. It has even to be borne in mind that "movement is the physiological condition of sensation, and therefore constitutes its chief physical sign, and that it is this sign which we must always strive to bring to light. The study of movement, considered in regard to its energy, rapidity, precision, and

form, constitutes the most solid foundation of our knowledge of psychology."

The book covers a wide field. It begins with the consideration of the physiological and pathological effects of physical agents; this leads up to the physiological conditions of emotions and to their pathological effects, and also their curative effects. Two chapters are devoted to the very varied forms of morbid emotivity, and these are followed by a chapter on the organs of the emotions. The work concludes with chapters on diagnosis, treatment, prophylaxis, and legislation. It is a book, taken altogether, which should do much to further the cause which the author has at heart—the raising of the study of insanity into a true science.

Traité Clinique et Thérapeutique de l'Hystérie. Par le Docteur GILLES DE LA TOURETTE. Préface de M. le Dr. CHARCOT. Avec 46 figures. Paris: E. Plon, Nourrit et Cie. 1891. Pp. 582.

Of recent years hysteria has received little scientific study in England, although it was an Englishman—Sydenham—who first placed it on a truly sound and secure basis. It was nearly two hundred years before Sydenham's work on this subject was fully recognized, and then the recognition came from France. With the exception of Brodie's notable contributions—which are fully appreciated in the work before us—no further advance has come from England. The school of the Salpêtrière—Charcot and a very large body of distinguished pupils—at present holds the field, and it is difficult to point to any worker not associated with this school who has lately done anything to advance our scientific knowledge of hysteria. The work, however, which has been done by Charcot and his disciples is now very considerable, and the time had arrived for some authoritative summary. This has been undertaken by Dr. Gilles de la Tourette, who has himself made important contributions to the question, and who possesses many qualifications for the task he has undertaken. His knowledge is wide, his tone is always moderate and judicial, and he is entirely free from that tendency to vague eloquence which has done so much in the past to render difficult a clear conception of

hysteria. In this first volume of his work he deals with "Hystérie Normale" or interparoxysmal hysteria.

The French school, as is now fairly well-known, regard hysteria as "one and indivisible" disease, and as their induction has been formed on a wide basis—from individuals of all nationalities, and from a thorough study of hysteria in children and in men, as well as in women—the opinion is entitled to respect. They reject the old conception of "hystero-epilepsy" as an impossible fusion of two radically distinct diseases. That epilepsy and many other diseases, especially of a degenerative character, may co-exist with hysteria they fully admit. It is, indeed, this occasional co-existence, they hold, which has, in the past, caused so much confusion, and which causes Dr. Gilles de la Tourette to parody a famous saying: "O Hysteria, what crimes have been committed in thy name!"

The chief chapters of the present volume deal with the history of hysteria, its etiology, the exciting causes, cutaneous anæsthesia, anæsthesia of the mucous surfaces and of the sensory organs, hyperæsthesia and hysterogenic zones, hysterical amblyopia and other troubles of vision, hysterical affections of the ocular muscles, hysterical contractions and tremors (including their relation to disseminated sclerosis), nutrition, and the mental condition of the hysterical.

The chapter on the mental condition of hysteria is of much interest and deserves careful study. It is shown that the chief mental characteristics may be reduced to an abnormal *suggestibility*. The suggestions may come from without or from within; and in the latter case the auto-suggestion is sometimes supplied by a dream or vision during a paroxysm or in ordinary sleep. In this chapter, and, indeed, throughout the book, the author finds apt and interesting confirmation in the evidence supplied by the confessions of witches and hysterical nuns. This is, indeed, a branch of the subject to which he has himself brought an important contribution, by editing and publishing the autobiography of Sœur Jeanne des Anges.

The work may be warmly recommended to those who desire an authoritative and comprehensive, but, so far as is possible, concise summary of the recent investigations regarding hysteria.

Entartung. By MAX NORDAU. Erster Band. Berlin : Duncker. 1892.

Max Nordau is best known as the author of an attack on the shams of civilization, which has been translated into many languages. For the preparation of the present book he seems to have saturated himself with the methods and results of modern morbid psychologists from Morel to Lombroso, and has thus been led to the conclusion that the literature and art of the present day may be summed up in the one word which gives the title to his book—*degeneration*. Not a single recent artist or writer (not being an alienist) is alluded to in this book except to be dismissed as a victim of mental derangement. The works of Millais, Rossetti (who belongs to the group of imbeciles), Swinburne (Magnan's *dégénéré supérieur*), Verlaine (*folie circulaire*), Tolstoi, Whitman (moral insanity), Wagner, etc., have all "psychic stigmata" of degeneration as understood by Morel. At the outset the author remarks that his results may be proved by physical examination of the writers and artists in question, and the study of their personal history, but he renounces this interesting task for the easier one of investigating the "psychic stigmata." This is certainly done with remarkable acuteness, but the author entirely fails to see that the presence in a work of genius of some mental characteristic also to be found in persons of weak or perverted intellect by no means negatives the genius. Max Nordau insists on the presence of serious punning and the collocation of assonant words in various modern writers as evidence of feeble mental power because the same characteristics are found in the literature of the insane. He is not apparently aware that such verbal tricks are specially frequent in Shakespeare, whom he regards as entirely sane.

By way of preface there is a dedicatory letter to the author's "dear master," Professor Lombroso. He remarks in this that he desires to do for the artist and man of letters what Lombroso has done for the criminal and the prostitute. This is rather unkind to the "dear master," who has himself written a large work ("The Man of Genius") on this very subject, in which work, moreover, he by no means reaches the same conclusions as his disciple. He does not hold, for example, that the element of morbidity in genius is more frequent to-day than in any previous day, and certainly does

not believe that such morbidity renders the work of genius less strong or beautiful. Lombroso, indeed, is not greatly in love with the whole theory of "degeneration."

The author, it will be seen, must not be taken too seriously. Still, he is very well informed, both as regards the latest results of psychological research and the latest manifestations of art and literature. It is throughout vivacious and epigrammatic in style. So cleverly, indeed, is the argument worked out that we are led to speculate concerning the particular form of the prevailing degeneration which "Entartung" itself illustrates. On the whole such examination of the author's "psychic stigmata" as we have been able to make leads us to believe that he is probably what the "dear master" would call a "mattoid." It is certainly some time since we have seen so well-marked a case of "misoneism."

A well-known aurist once wrote on a prescription in an absent-minded moment, "The ointment to be rubbed round the world night and morning." Max Nordau seems to have received his psychiatry accompanied by similar careless directions. To the alienist who can here see the formulæ prepared for his own use zealously rubbed round the world the book may afford considerable amusement.

Psychologie du Peintre. Par LUCIEN ARRÉAT. Paris: Alcan. 1892. Pp. 267.

The author of this book is well known as a psychologist of the modern school, more concerned with facts than with theories. He has collected and summarized most of what may be gathered as to the special psychology of artists, at the same time adding fresh material, the fruit of his own observations. He deals with the anatomical and physiological characters of artists, with the quality of their vision and their memory; with their heredity; while the concluding section is devoted to the pathology of the painter. The book altogether forms a readable chapter in psychology, but, as may be anticipated in the first attempt to deal comprehensively with a new subject, the conclusions reached are not usually very definite.

Anatomy of the Brain and Spinal Cord. By J. RYLAND WHITAKER. Second edition. Edinburgh: Livingstone. 1892.

We had the pleasure of recommending the first edition of this little book to the readers of the "Journal of Mental Science," and we hope in time to see a third edition. We know that the work has been found a useful text-book for students in the Edinburgh Medical School, and no doubt also in other places. Any medical man who wishes to refresh his knowledge of the spinal cord and brain will find a timely help in Mr. Whitaker's clear descriptions and well-planned illustrations and diagrams. In the present edition the page is larger, and there are now 178 pages instead of 135. The chapter on the methods of ascertaining the location of the different sulci and gyri in relation to the skull and scalp is a useful addition at present, when surgery is busy with new operations on the cranial contents. The principal improvement is, however, in the lithographic plates, of which we have now 40 instead of 22. They are also more elaborate in outline, and the effect of the diagrams has been more carefully studied. The labour in designing these illustrations must have been fully equal to that of writing the text. Mr. Whitaker does not claim to teach any new views in his book, but for a clear and concise description of the nervous centres it has not been surpassed.

Psychopathia Sexualis with special reference to Contrary Sexual Instinct: A Medico-legal Study. By DR. R. VON KRAFFT-EBING, Authorised translation by CHARLES GILBERT CRADDOCH, M.D. The F. A. Davis Company, Publishers. 1892.

There are many unsavoury subjects which have to be considered in medical practice, especially when that is carried on among the insane. The lower animal nature in some patients shows itself often in all its simple beastliness. Yet we do not think, in England, at least, that it is well that such subjects should be fully considered in books which may be bought of any bookseller. Perhaps we are prudish, but we think that the production of this book by Ebing will not add to his reputation, nor will it do any possible good to the medical or the psychological world.

We understand that already in Germany many editions of the book have appeared, quite out of proportion to its medical interest, hence we must infer that a prurient public is studying it to its own harm. The book under consideration may be referred to as one considering briefly the psychology of the sexual relations, and then in detail the forms of sexual perversion.

In the original certain passages were written in Latin, and we are glad to say the American translator has left them in that language.

Various Forms of Hysterical or Functional Paralysis. By
H. CHARLTON BASTIAN, M.A., M.D., F.R.S. London:
H. K. Lewis. 1893.

This book is an important contribution to a very difficult subject. It is carefully and clearly written, and every line in it gives evidence that the subject-matter has received deliberate attention. Amidst the much loose writing of the present day, it is a relief to turn to a piece of close reasoning so ably set forth.

Dr. Bastian begins by warning us against the diagnosis of *functional paralysis* as a positive diagnosis; it is at best a negative one, and, when arrived at for the most part by a process of exclusion, it is found to include so much that we become aware that we are in the midst of Dante's "*selva oscura*." For *functional paralysis*, we are told, includes hysterical paralysis, since, "hysteria is, after all, only one of the general conditions under the influence of which paralyzes of a purely functional type may develop themselves," and the magnitude of a subject of which hysterical manifestations constitute but a section thus dawns upon us. The title Dr. Bastian has given to his book does not quite do justice to his own warnings, for it suggests that the terms hysterical and functional are convertible, *i.e.*, equivalent.

Pursuing his introductory remarks, the author insists that the diagnosis, *hysterical, functional*, as here employed, is but the first approximation to a diagnosis, and that it simply excludes gross organic changes, and makes it probable the disease would not reveal its secret even to the microscope; beyond this negation, "the problems of a regional and of a

pathological diagnosis" are alike unsolved. He touches upon the great difficulties which even the first part of the diagnosis involves, the exclusion of organic disease, and instances the protean manifestations to which disseminated sclerosis gives rise, a subject to which Dr. Buzzard has lately drawn attention. He points out that it is not sufficient to discover hysterical symptoms in the case before us, since the more common of these symptoms "are associated with those of actual organic disease of the nervous system;" the presence of such hysterical symptoms should make us all the more wary. Further, he warns that the fact of recovery more or less from a given group of symptoms does not necessarily suggest a functional origin, since actual experiment, *e.g.*, the investigations of Mott on hemisection of the cord, has shown that restitution of function may occur, and since we are also familiar pathologically with such events as the resolution or canalization of a thrombus.

But accepting that the diagnosis "functional" has been arrived at correctly, we have next to attempt to solve the question, where is the mischief situated (?), and here, on grounds far less secure than are represented to us by organic disease, we have, as a preliminary, to settle, is the lesion cerebral or spinal—is it central or peripheral? We are apt, amid the great advances which have been made in nervous symptomatology, to overlook the great extent of the unknown, yet, as Dr. Bastian points out, our knowledge of the brain itself is most meagre. Thus, of the cerebellum we may be said to know nothing as to its functional diseases, and of the cerebrum little outside three regions, which he thus defines:—(a) The Rolandic convolutions; (b) the posterior third of the hinder segment of the internal capsule; (c) a region involving some of the outgoing fibres from the Rolandic convolutions. In this statement he is referring to the symptomatology of functional defects capable of producing paralysis.

Having decided where the mischief may be, we next can discuss its nature. Are these functional troubles due to vascular disturbances—say, for instance, a spasm of the vessels, resulting in an anæmia of the area supplied? Of such a supposition, we not only have no proof, but we lack the physiological data of the problem, for though Bradford's researches led him to believe in the presence of vaso-motor nerves in the brain, they cannot be said to have been demonstrated. Beyond this difficulty is another, viz., the

great duration of the symptoms in many cases of functional disorder : it is hard to believe in a vascular spasm of equal duration. Of the existence of prolonged vascular spasm Dr. Bastian does, however, think there may be some evidence if we may interpret as such the difficulty in causing bleeding by even deep needle pricks on the anæsthetic side of the body. The alternative to vascular disturbance as the cause of functional troubles is a primary localized failure of nutrition, but such a statement does not advance matters.

The author then proceeds to discuss cases of functional paralysis, and first those due to disease in the Rolandic area. This at once introduces the question of the real nature of the centres here situated and "so-called motor." Dr. Bastian, as is well-known, combats the view maintained by Ferrier, that they are motor and motor only, and insists that the centres are sensory, and that in them are registered the impressions derived from and occasioned by movements. The arguments in favour of this view are given more at length in Appendix A. of the present volume, wherein are embodied portions of the discussion on the muscular sense which took place at a meeting of the Neurological Society, in December, 1886. The subject has more than a mere philosophical aspect, and we may, therefore, touch briefly on the principal points :—

1st. When, like the pious *Æneas*, we ponder many things by night and day, it is made clear to us that for the moving powers to become perfected, as we know they do become, adjusted to the exigencies of circumstances, there must be somewhere within the nervous system a locus where the attempts at movement, successes and failures—in a word, the motor experiences—are stored up. Without such registration successful movement would be the exception, the result of happy chance ; failure would be the rule.

2nd. The experience of a given movement must be the appreciation of the motor output or muscular effort. This, however, in one aspect is a peripheral event, and it is represented by the algebraic sum of the tensions and counter-tensions, whose resultant is the movement. But for a movement to be successful, the nervous system must somewhere be cognizant of the tensions and counter-tensions already existing at the moment the new movement is contemplated, and it must also recall or revive somewhere the memory of previous attempts at similar movement—on these data the new movement is initiated. The nervous

system must thus take note *somewhere* of the state of its peripheral mechanism, and must remember past states of this same mechanism, and the *revival of motor experiences* must precede all new voluntary motor attempts.

3rd. Work of this kind must obviously be central, and, important as it is, seeing that it involves the highest powers of adaptation, we shall naturally seek for this locus somewhere among the higher centres of the cortex cerebri or cerebelli.

4th. But experiment and pathological experience have alike discovered a region of the cortex cerebri—the Rolandic area—which is most intimately connected with movements of the various parts of the body and, in particular, with volitional movements. This region is evidently that from which proceed or in which begin the impulses which issue at the periphery as variously combined movements, and in this region it may be said the whole motor apparatus is completely represented.

5th. No other region of the surface of the brain has been shown to be intimately connected with movements of all kinds, and since one such region has been postulated by the *à priori* reasoner, therefore this Rolandic area must be the locus or centre where motor experiences are registered and aroused. To name this region according to this theory the word kinæsthetic has been coined; it signifies movement-sense.

The argument thus briefly sketched out is surely logical, and the annexation of the Rolandic area on these grounds must be said to be both reasonable and probable, and this is the position assumed by Dr. Bastian. Against this view, Dr. Ferrier contends: the Rolandic area, according to him, is motor only; it issues commands, but does not receive and register muscular bulletins. Dr. Ferrier was first in the field of actual exploration in this country, and it must be regarded as a brilliant piece of strategy on the part of Dr. Bastian to hold in reserve questionings such as these till the work of survey had been done fairly completely, and then to quietly step in and claim as sensory, centres which have been shown to be motor; one can quite understand that the annexation has been resented.

However, brilliant as we must admit to be the work of Dr. Bastian, as an example of the reasoning process, and invaluable as a contribution to cerebral philosophy, the worth of Dr. Ferrier's work is not diminished, even though this new

view should prove, as we think it is likely to prove, the true one.

Dr. Bastian puts the controversy into a nutshell when he says that since the revival of past motor experiences must immediately precede new movements, then, if the Rolandic area be a purely motor area, there should be, must be, another region, whose stimulation would as unfailingly excite movements as stimulation of the Rolandic area itself, but no such other region has been demonstrated, therefore the Rolandic area must, *pro tem.*, be regarded as the region of motor sense registration and revival.

From another point of vantage the controversy is accessible, and on this point many of the cases of functional paralysis which the author records bear evidence. It is, that lesions, experimental or pathological, of the Rolandic area do not express themselves merely as motor disturbances, but cause, at the same time, sensory disturbances. This should be so according to Dr. Bastian's theory, and he maintains that in actual fact it is so, and that, for instance, we shall find in cases of hemiplegia and of paraplegia that the patient has frequently a very inadequate appreciation of the state of tension of his muscles, and, therefore, of the position of his limbs. This is a point which cannot be investigated on animals, for we need the statement of the patient himself as to his subjective feelings. Oddly it is cases of functional paralysis which help us here more than cases of organic lesion, and for this reason, that in functional paralysis we so frequently have conjoined more or less *general* anæsthesia. But general sensation is in itself a guide which tells us of the position of our limbs, and by means of tactile impressions alone we may be able correctly to report, *e.g.*, as to whether a limb is flexed or extended. In motor paralysis of organic cause, general sensation is often scarcely impaired, and we can hence see why in these the loss of muscular sense should be less apparent than in the functional cases. In testing the loss of muscular sense, Dr. Bastian is accustomed to question the patient, not merely as to the position of a limb which has been passively moved into a new position, but also as to his ability to imagine a familiar movement with the paralyzed limb, and this the patient is frequently unable to do. Here, again, is a test inapplicable to animals, and in which we depend on the patient's subjective feelings as well as on his *bona fides*.

On the author's view of the kinæsthetic functions of the

centres in the Rolandic area, some explanation is forthcoming of those remarkable cases of functional disorder in which a hemianæsthesia is accompanied by a paralysis of the anæsthetic limbs with this peculiarity, that the paralysis may be present only when the eyes are closed; such cases have been recorded by Duchenne, by Briquet, and by Bazire. In other cases the paralysis is present whether the eyes are open or closed.

It is interesting from another point of view to consider what will be the effect, on the author's hypothesis, of destruction, in the one case, of the kinæsthetic centres and, in the other case, of interference with the inflow of muscular sense stimuli. In the first, paralysis should ensue, because it will be impossible to revive or to arouse those motor imaginings which must precede executed movements, *e.g.*, if the centres in which are stored the motor experiences of the pianist be destroyed there will of necessity be paralysis of pianoforte execution. But if the muscular sense impressions of the pianist be at fault whilst the centres are intact, then, when these latter would play, the execution will be more or less erratic or insane, since there will be lack of adaptation between the incoming and efferent stimuli—in short, the centres will be misinformed. Dr. Bastian complains of Dr. Ferrier that he has not given due consideration to this distinction.

Along what paths do muscular sense stimuli travel? Here is an unsolved question at present, for neither in the cord, nor in the medulla, pons and cerebral peduncle have these fibres been traced. Till they have been discovered and traced home to the Rolandic area, the kinæsthetic theory may be said to still lack demonstration, or, at least, to be incomplete.

Do we learn anything new as to the therapeutic indications in cases of functional paralysis? It can be said that we do. Tonics, nervine, blood; careful feeding with such adjuvants as cod-liver oil, maltine, etc.; the removal of any special cause of debility, menstrual or other: by such means we endeavour to build up the body from the physical side. Among special treatments the electric takes a high place, and in particular the treatment by statical electricity, with the drawing of sparks from the various parts of the body. Needle baths, saline baths, etc., will belong to the category of stimulant treatment, and here massage will also find a place. Concerning all these means of stimulation, the author

claims that they are such as would be expected to be of value on the theory of kinæsthesia, since they tend to rouse into activity centres of muscular sense. Of hypnotic treatment very little is said; it has been little tried in this country. Of the Weir-Mitchell treatment a word of caution is added, to the effect that we must not expect all cases to yield to a five or six weeks' course, and as a case in point Weir-Mitchell is himself thus quoted on a case: "Urged and scolded, teased and bribed, and decoyed along the road to health," and after a year's treatment only attaining the stage of walking on crutches. This case appears not to have been unsuccessful, but it is a commentary on the patience which may be called for. Of another case Weir-Mitchell remarks that the cure of such amounts to nothing less than a "long and arduous course of education."

In conclusion, we would express our admiration of the style of work of which this volume gives evidence—it is a testimony to the value of *thinking* and *thinkers* in the elucidation of the intricacies of nerve physiology and pathology.

Illustrations of the Mid and Hind Brain. By ALEX. BRUCE, M.D., Edinburgh. 1892.

(Second Notice.)

In this work Dr. Bruce embodies the results of his researches on the pons and medulla, their various nuclei and tracts of fibres. The method employed was that of Weigert, or some of its modifications, and was applied to structures obtained from the human foetus from the fifth month up to the full time. It is well known that this method has already yielded most valuable information regarding the origin and course of many tracts in the cord and other parts of the nervous system, and in Dr. Bruce's hands, besides affording the material on which the illustrations are traced, it has been the means of his adding still further to our knowledge of these structures.

Dr. Bruce's book is essentially an atlas, containing, as it does, thirty-five drawings of sections made at various levels and in different directions through the pons and medulla. These have been exceedingly well done, and a comparison of

them with the original sections at once shows their absolute correctness. In these drawings one can trace, for example, all the intricacies of the fillet, or the origin and course of any individual cranial nerve, except the first and second. In fact they are the best means we know of for becoming acquainted with the latest information regarding the minute anatomy of the mid and hind brain.

Anyone who has worked at the pathological conditions which are met with in that part of the nervous system will readily acknowledge that, to understand these, it is essential to have a thorough knowledge of the normal structure. Though this is not by any means an easy thing to acquire, the difficulties of doing so have been removed, as far as they could be, by Dr. Bruce in his atlas. The number of drawings of sections is such that there is no abrupt transition from one point to another, and thus the tracing of a particular tract can be followed without much difficulty, and requires the exercise of only a little imagination. The fifty pages of letter-press which form the first part of the book give an excellent account of our present knowledge of the structure of the pons and medulla. To this Dr. Bruce has himself added some interesting and not unimportant facts. Among these may be mentioned his discovery of the independent medullation of the cochlear and vestibular roots of the eighth nerve, the connection of Deiter's nucleus with the inferior olive, and the various groups of cells in the nuclei of the third nerves.

Besides giving the results of his examination of the nervous system of the fœtus, Dr. Bruce also draws attention to the value of pathological specimens obtained from cases in which some lesion has caused injury and subsequent degeneration to one or more of the various nerve tracts. This at present seems to offer a more fruitful field than the older and better known method, which has hitherto yielded the greater part of our present knowledge. It is an undoubted fact that, in asylum practice, one comes across a considerable number of cases of gross brain lesion, and were all the opportunities which these cases afford fully taken advantage of, there is no saying how much valuable information regarding various nerve tracts might not result from a careful examination. Some of the numerous asylum pathologists might with advantage take up this subject and assist in justifying their existence to the rest of the medical profession.

In conclusion, we can only once more testify to the excel-

lence of Dr. Bruce's book, and express the hope that before long he may add still further to the knowledge of the subject which he has already done so much to elucidate.

Recherches Cliniques et Thérapeutiques sur l'épilepsie, l'hystérie et l'idiotie. Par M. BOURNEVILLE, Médecin de Bicêtre (Publications du "Progrès Médical"). Paris: Vve Babé et Cie. Vol. in-8 de C. 252 p. 1891.

This work is the report of Bicêtre Asylum for 1890, and produced by Bourneville, with the assistance of his junior colleagues, Messrs. Camescasse, Isch-Wall, Morax, Raoult, Seglas, and P. Sollier.

As might be expected from its author, thoroughness is a characteristic of the book, and a most attractive feature is the comprehensive account of the life-histories of idiots, which serve to illustrate the clinical and pathological aspects of idiocy in its various forms.

It is divided into three parts:—

The first part, which need not detain us in this review, gives an account of the plan of construction and management of the idiotic institute at Bicêtre and its annex the "fondation Vallée," and deals with the hygienic and educational treatment of its inmates.

The second part is devoted to the clinical and pathological study of various kinds of idiocy, and includes an account of a few cases of hysteria and hystero-epilepsy in men.

In the third part are included contributions made by Bourneville to the International Congress of Mental Diseases in 1889, and a contribution made to the National Congress of Alienists in 1890.

The clinical and pathological sections will prove the most interesting to students of idiocy, and the judicious comments which generally conclude the detailed observations cannot fail to be appreciated.

Chapters I. to VI. deal with cases of symptomatic idiocy, including:—(a.) Idiocy associated with general malformation and traumatism; (b.) Idiocy with arrest of development of convolutions and cerebral atrophic sclerosis; (c.) Idiocy due to simple atrophic sclerosis of convolutions; (d.) Idiocy associated with cerebellar tumour; (e.) Idiocy with meningo-encephalitis; (f.) Idiocy with epilepsy. These cases have not been published before.

Full notes of the family history, previous history of the patient, actual condition, progress, death, and autopsy are given, and it is not too much to say that they are models of their kind. The remarks at the end of each case afford Dr. Bourneville an opportunity of making careful generalizations, which are justified by an extensive experience and highly-trained powers of observation. Of such are the following:—

Eclampsia, occurring during labour, is only exceptionally a factor in the causation of idiocy in the offspring. There is often observed in cases of epileptic idiocy a cachexia which might well be called the “epileptic cachexia,” progressively determining a fatal issue, and unexplained by microscopical investigation. The idiocy symptomatic of atrophic sclerosis of the brain is susceptible of great improvement when uncomplicated with epilepsy.

The presence of convergent strabismus in meningo-encephalitis (Vid. C. V.) is probably due to a lesion of the cortex, the result of irritation at the level of the oculo-motor centres, and is comparable to the temporary convergent strabismus observed at the onset of an attack of epilepsy or of hysteria, and carefully described by Parinaud, of the Salpêtrière.

The diagnosis of idiocy arising from meningo-encephalitis is justified in presence of the following signs and symptoms:—Absence of intellectual development, appearance of strabismus without convulsions, grinding of teeth, oscillatory movements of the head and trunk, knocking of the head, attacks of violence with shrieks, insomnia and vaso-motor disturbances.

The pathology of meningo-encephalitis, though closely related to that of general paralysis of the insane, differs from it in that the lesions of the walls of the cortical vessels are essentially degenerative, and that the degeneration of nerve-cells is secondary to that of the vessels, whereas in general paralysis it is primary.

From the careful analysis of hundreds of cases of idiocy, Bourneville says he has never observed any attenuation in the degenerative course of families by a well-selected alliance or judicious inter-marrying with the healthy; in such cases, either the children resulting are healthy or they are degenerate, but rarely less degenerate than their parents, unless the diseased parent has, before the conception of the child, perceptibly modified his general condition by suitable treatment.

Chapter VII. is devoted to three observations on hysteria in men. The first is a typical case of hysteria in a man, aged

27 years, subject to severe hysterical attacks, affected with incomplete left-sided hemianæsthesia, hysterogenous zones, etc. Cases two and three are severe cases of hystero-epilepsy, as may be gathered from the fact that, in one, fracture of the clavicle took place during one of the attacks, and in the other a traumatic deformity of the thumb, with severe injury in the parietal region of the skull. One of the cases improved notably under bromide of camphor.

In Chapter VIII. Bourneville proposes the following classification of idiocy:—(1.) Hydrocephalic idiocy. (2.) Microcephalic idiocy. (3.) Idiocy symptomatic of an arrest of development of convolutions. (4.) Idiocy associated with congenital malformation of the brain (porencephalus, absence of corpus callosum, etc.). (5.) Idiocy associated with hypertrophic sclerosis. (6.) Idiocy with atrophic sclerosis. (a.) Sclerosis of one or both hemispheres; (b.) Sclerosis of one lobe of the brain; (c.) Sclerosis of isolated convolutions; (d.) Disseminated sclerosis of the brain. (7.) Idiocy associated with meningitis or chronic meningo-encephalitis. (8.) Idiocy associated with myxœdema and related to absence of the thyroid gland.

Chapter IX. is a contribution to the study of microcephalic idiocy, and illustrated by five detailed observations. The important points to which Bourneville draws attention are that in most cases the antecedents are pathological, either on the father's side or on the mother's side, or on both, and that convulsions frequently occur in infancy. He disputes the conclusions of Gratiolet, Ducatte, and others that the patients are generally undersized and their sexual development markedly deficient. Microcephalic idiots are susceptible of education, and often markedly so. The theory that microcephalus arises from premature ossification of the cranium preventing the development of the brain, if true in certain cases, is certainly not the rule (v. obs. iii.). Epilepsy is occasionally associated with microcephalus. The chances of amelioration in microcephalic idiots are greater the earlier the treatment is begun.

Chapter X. deals with the subject of porencephalus and pseudo-porencephalus. Under the name porencephalus are now included all cases in which there are extensive losses of substance of the brain. Bourneville is in favour of restricting the word true porencephalus to those cases in which the loss of cerebral substance is due to an arrest of development, and of grouping under the head of pseudo-porencephalus those cases in which the loss is consecutive to a destructive

process (softening, etc.). In true porencephalus (congenital) the depression in the brain communicates with the lateral ventricle. It is conceivable that in extensive pseudo-porencephalus such might also be the case. Pseudo-porencephalus is usually on the left side and involves the Sylvian area, or the area of distribution of the middle cerebral artery, which is in favour of attributing its origin to circulatory trouble.

An important difference between true and spurious porencephalus lies in the arrangement or disposition of the cerebral convolutions. In the former the convolutions radiate around the porus, into which they dip; in the latter they are divided irregularly by the porus, and the unaffected parts show no deviation from their normal direction. The shape of the porus or depression is also quite different in the two varieties. In true porencephalus there is a kind of funnel, sometimes a simple slit or an almost circular orifice; in pseudo-porencephalus one finds a large gaping excavation, the walls of which, instead of being formed by the convolutions, are constituted by the white substance, covered over by the membrane of the false cyst, which intimately adheres to it. In spite of pseudo-porencephalus being relatively a much more extensive disease, psychical phenomena are often less marked than in true porencephalus, which is nearly always associated with complete idiocy.

In the last chapter (Chapter XI.) is a new contribution to the study of myxœdematous idiocy (also called "*idiotie avec cachexie pachydermique*") and a record of eight cases, six of which belong to Dr. E. C. Stirling, of Adelaide (five of these are members of the same family—a very interesting point). The symptoms and signs in most cases correspond to those generally described, stress being laid upon one sign which was well-marked in all, *i.e.*, a marked tumefaction, with tendency to hairy growth, in the region of the lower cervical and upper dorsal vertebræ.

The plates at the end of the book refer mostly to the cases of microcephalic idiocy described, and are useful additions.

In conclusion, we may say that Dr. Bourneville and his assistants have published an important and valuable contribution to the literature of idiocy, and will earn the best thanks of those interested in the subject, especially for the very full and detailed account of their cases.

The Fort England Mirror: A Magazine to Amuse and Instruct. Published quarterly. July and October, 1892. Published at Fort England, Grahamstown.

It is with much pleasure that we receive from time to time evidence of the spirit with which the Grahamstown Asylum is being administered by Dr. T. D. Greenlees, formerly assistant medical officer at the City of London Asylum. We regret that from pressure on our columns we have hitherto contented ourselves with feeling instead of expressing this pleasure in the pages of the Journal. The above Magazine is edited by Dr. Greenlees, and no doubt affords instruction and amusement to the inmates of the asylum.

In the number for October a bird's-eye view of the institution is given. What was formerly the mess house of the military officers is now "The Residency," that is to say the residence of the medical superintendent. It is separated from the male division of the asylum by a cricket ground. This is bounded by the laundry and clerk's house. There is in the distance the location set apart for natives.

We wish success to this Magazine and to the asylum under Dr. Greenlees' care. We have no doubt that there is a great deal of uphill work, and that it is no easy work to sustain the energy needed for the administration of such an institution in a climate where we believe the thermometer is frequently 108° in the shade.

We have before us the Report of the Inspector of Asylums in the Colony of the Cape of Good Hope, presented to Parliament by command of his Excellency the Governor in 1892. Dr. Greenlees' report of the Grahamstown Asylum is printed, the seventeenth since the opening of the institution. Since the asylum was opened 257 patients recovered, the ratio being 30 per cent. on the admissions; 213 deaths occurred, the percentage of deaths on the average number resident being 11.

Great improvements have been carried out, and a new ward has been opened for quiet patients and those of a better class in the female European division.

The Inspector observes in his report, "Dr. Greenlees is devoting himself assiduously and with great success to the management of this hospital, which during the last year admitted as many as 1,990 cases, but his efforts are a good

deal hampered for the want of a large dining and recreation hall."

We are glad to see that the statistical tables appended to the report are those of the Medico-Psychological Association.

Dr. W. J. Dodds presents the report of the Valkenberg Asylum, the first which has been issued. Dr. Dodds is the Inspector of Asylums, and he states in his returns that the total number of lunatic and idiotic persons in the Colony is 1,921, the number in asylums being 645. For the *white* population alone the proportion of insane persons under official supervision to the population is one in 1,050, there being 376,987 white persons, and the number of registered white insane, January 1st, 1892, being 356. For the coloured population the proportion is one in 3,796, there being 1,150,237 coloured persons, and at the above date 303 registered coloured insane. Additional accommodation is required.

Dr. Impey presents a special report on the Robben Island Lunatic Asylum. He considers that the island is well adapted for the safe detention and successful treatment of lunatics, but by no means perfect. The buildings were built for barracks, and much requires doing to remove their prison-like appearance. The accommodation for lunatics, lepers, and convicts has been very scanty in the past, but now good buildings are being erected and the old ones transformed.

The Asclepiad. By BENJAMIN WARD RICHARDSON, M.D., F.R.S. (Vol. ix., No. 35. 3rd Quarter, 1892).

This Journal shows no indication of waning vigour. In fact the present number contains a large amount of interesting matter. One note on "Nervous and Mental Derangement from Organic Sulphur Compounds" has reference to the instances of derangement of mind induced by exposure to inhalation of sulphuretted hydrogen related by Dr. Andrew Wilson on the observation of Dr. Wigglesworth. Dr. Richardson recalls his own observations presented to the British Association in 1870. He introduced the study of the effects produced by chemical substances modified by the introduction or abstraction of simple elementary parts, and insisted that it was necessary to commence with a base, and to follow the modifications of its actions through the varied

compounds formed upon it. He indicated the peculiar action of the substance known as *mercaptan* or *sulphur alcohol*. It was shown that a person brought under its action was subjected to strange variations of mind and body, viz., a desire to sleep, a strange, unhappy, dreamy sensation as from some actual or impending trouble, succeeded by an easy but extreme sense of muscular fatigue, so that the limbs felt too heavy to be lifted, and with depression and slowness of pulse for several hours. Sulphur compounds were also shown by him to be readily constructable in the animal economy, and a new field of inquiry was opened as to their presence in the air of a sick room and in the excretions. When we know how minute a proportion of sulphur alcohol will produce mental depression bordering on suicidal propensity, we may infer that the formation of sulphur compounds *within* the body would account for many examples of excessive temporary prostration, for the cause of which we have as yet no explanation.

In a further research on the same subject Dr. Richardson says, "I came to the conclusion that the influence exerted over nervous matter by the element sulphur, in disintegration, was so marked in mental aberration that it was inevitable that melancholia and other nervous affections, attended with or without paralysis of voluntary muscles, must some day be accepted as due to the presence of compounds of this element; that there is sometimes abundant evidence, from odour alone, of the presence of mercaptan in the excretions from the lungs, the skin, and the alimentary canal; and that by inquiry in this direction we have before us the first steps towards a rational explanation of insane conditions produced as deliriums from intoxication by intoxicants developed in the vital organic chemistry. In respect to deliriums from sulphur products so many corroborative facts have now been recorded in addition to these latest by Dr. Wiglesworth, the view I advanced in the report may be considered as a demonstration" ("*Asclepiad*," p. 254).

Dr. Peterson has drawn attention to the influence of sulphur compounds in causing attacks of insanity in the "*Boston Medical and Surgical Journal*," October 6th, 1892. Three cases of acute mania from inhaling carbon bisulphide are reported. They occurred in 1887.

In a very careful and thoughtful article on Sir Thomas Browne and the "*Religio Medici*," Dr. Richardson, in his earlier readings, arrived at the conclusion that there is a

vein of satire running through this celebrated work. He shall speak for himself from his later readings of the work and the times in which it was written:—

“The majesty of the Catholic Church of Rome had then departed from the minds of men of the class to which Browne belonged, except in such instances as that of Kenelm Digby, in whom heredity carried the majesty almost intact. At the same time the religion of the Puritan and Presbyterian, the Baptist, the Anabaptist, and the other sectaries was to this author (Browne) harsh, low, vulgar. He therefore found refuge in the reformed Church of England, with sufficient ceremonial in the services of that Church to give poetry to them and a mixed system of learning as well as worship. That is not all. He was smitten with science, not deeply, not by experimental personal labour like Galileo, nor by psychological labour like Spinoza, but by a kind of secret sympathy which he dared not fully confess even to himself. In the dilemma he strove to bring up reason to the bar of faith, and when, in the attempt, he found reason compatible with faith he was satisfied; whilst, when he found what he called reason in opposition to faith, he gave reason its *congé*, and let faith stand alone.”

Here Dr. Richardson thinks he has found the key to the mystery. Browne thought it no degradation to believe what is not only above, but “contrary to reason and against the arguments of our proper senses.” We all who have admired his writings have regretted his superstitions in regard to witchcraft, practically shown as it was in giving evidence which helped the convictions of two unhappy victims of this terrible belief. Dr. Richardson points out that Sir Thomas Browne would have been guilty of a still worse offence had he not believed in what he wrote. Dr. Richardson, we are glad to find, no longer thinks the “*Religio Medici*” a satire, but that “it breathes the confession of a struggling scholar, of a true child of science, a poet striving to read from nature, understanding some parts, but closing the page as undecipherable and too fearful to be pursued whenever doubt proved a traitor.”

We must not enter further upon the fascinating subject so interestingly handled by Dr. Richardson. We refer the reader to the “*Asclepiad*” itself, where he cannot fail to find much to interest him, not only in this essay, but in others. The “*Asclepiad*,” written from beginning to end by Dr. Richardson, will, if we are not mistaken, retain a permanent place in our medical literature. We have omitted to state that the portrait of Sir Thomas Browne is, like all those

which have appeared in this publication, an admirable production.

Since writing the above we have received the "Medical Magazine" for January, containing an article by Dr. A. C. Farquharson on "Organic Sulphur Compounds in Nervous and Mental Diseases." He regards the observations of both Dr. Richardson and Dr. Wigglesworth as "undoubtedly of interest and importance in their relations to the subject of toxæmia from the fact that the common element, sulphur, forms part of the intoxicant compounds. But the characteristic features differ so much in the two groups of observations that they appear best considered apart. In fact, the only feature which they possess in common is this one of the presence of sulphur in the intoxicant for each case." Dr. Richardson would argue that the symptoms arising from sulphuretted hydrogen must be different from those caused by mercaptan, because in one instance the sulphur is combined only with one element—hydrogen—in the other with two—carbon and hydrogen—and because one is a volatile, the other a fixed compound. This common tie is, Dr. Farquharson considers, "considerably weakened when it is remembered that it rests upon a presumption, viz., that sulphuretted hydrogen was the inhaled poison in Dr. Wigglesworth's cases." His conclusion is that "the insanity of mercaptan differs greatly from that of sulphuretted hydrogen, and while differences so great may, for speculative purposes, be grouped together under the comprehensive phrase of 'mental derangements,' they are still so wide apart as to suggest ætiological factors beyond sulphur compounds, and to justify the contention that one cannot be taken as corroborative of the other." ("Med. Mag.," p. 642.)

Der Rapport in der Hypnose. Untersuchungen über den Thierischen Magnetismus. Von Dr. ALBERT MOLL. Leipzig, 1892.

Dr. Moll's latest book, "Der Rapport in der Hypnose," is published under the auspices of the German Society for Psychological Research. This Society, we might add, was formed in November, 1890, by the amalgamation of the "Psychological Society" of Munich, and the "Society for Experimental Psychology" of Berlin, and corresponds, in a more sceptical sense, to the "Society for Psychical Re-

search" in this country. A knowledge of the above fact explains at once the standpoint from which the question is approached. It is well known that the purpose of the societies mentioned is to investigate impartially all kinds of phenomena brought under their notice, and not *a priori* to reject such phenomena as impossible. In the same way Dr. Moll has taken in hand the assertion of the so-called *mesmerists*, that in the hypnotic *rapport* there is at work some kind of unknown influence, which cannot be appreciated by our generally recognized senses, and which they call animal magnetism; and he has considered it worth the trouble of making a great number of experiments in order to test the influence of animal magnetism in and on the hypnotic condition, especially in producing the so-called *rapport*. The last number of this Journal contained a review of an article by Professor Wundt on hypnotism, in which the question of animal magnetism, telepathy, etc., is rejected without experimental investigation as a scientific impossibility. To this article Dr. Moll refers at the end of his book, saying that Professor Wundt was not quite correct in stating that only those give their time to experiments of the kind mentioned, who thoroughly believe in the phenomena they are going to investigate, for it is almost needless to say that Dr. Moll comes from his experiments to the same conclusions at which Professor Wundt arrives without experiments, through scientific reasoning. Professor Wundt's standpoint is very good for the limited number of those who are so well-informed in science as is the Leipzig Professor himself, and able absolutely to follow the course of his logic, but the standpoint adopted by the societies mentioned, and also by Dr. Moll, is certainly the more suitable and practical one for convincing the greater number of people of the erroneous-ness of the assertion that there is such an invisible and powerful factor at work in hypnotic suggestion as "animal magnetism." The latter standpoint also avoids the objection of unfairness from the opposite side. It is almost superfluous to say that the number and variation of the experiments which Dr. Moll performed and describes is as complete and thorough as we have become accustomed to expect from Dr. Moll's former work. His knowledge of the subject and of the related branches is very wide, and to us it was especially interesting to read his remarks on the taming of wild beasts, and the conclusions he draws from the analogy of the influence of the *dompteur* on his animals and

of the hypnotizer on the person with whom he is *en rapport*. We doubt whether Dr. Moll's latest book will find so wide a circle of readers as his book on "Hypnotism" has found. Hypnotism in itself is so interesting that such an excellent book as the one mentioned could not fail to find a large circulation. It is, however, not everybody's liking to read about experiments which all prove to be failures, *i.e.*, to find a record of negative results only. The greater number of people—and this is certainly true in the case of a large number of those who are interested in hypnotism, and to this latter class alone the remark of Professor Wundt applies—in performing or witnessing experiments, expect and want to see positive results, and are unable to appreciate that the failure of an experiment is quite as valuable from a scientific point of view as a successful experiment. Dr. Moll's "*Rapport in der Hypnose*" is a collection of negative results with regard to the proof of the existence of animal magnetism, and therefore of great scientific value, although not to medical hypnotizers, who knew them already.

Leçons sur les Maladies de la Moelle. Par le Dr. PIERRE MARIE. Paris: G. Masson. 1892.

The lectures of which this book is composed were delivered at the Paris "Faculté de Médecine" in 1891, and deal with some of the most important diseases of the spinal cord, especially with the chronic scleroses.

After giving a full and lucid account of the anatomy (physiological and pathological) of the spinal cord, comprising seven lectures, and embodying the most recent researches on the subject, the author begins with the description of spasmodic tabes dorsalis.

Lectures X. to XIV. deal with disseminated sclerosis, of which Marie distinguishes three forms:—

- a. The spasmodic.
- β. The cerebellar.
- γ. The cerebello-spasmodic.

Among other interesting points we note that the most constant oculo-motor symptom is paralysis of the associated movements of the eyeballs, and that the psychological disturbance generally present consists in slight *dementia*, apathy, or melancholia, with the frequent presence of attacks of un-

controllable laughter. The importance of infectious diseases in the etiology of this affection, a subject which Marie has investigated thoroughly, is dwelt upon, and he inclines to the belief that the inflammatory process—an interstitial one—which characterizes the pathology of the disease is due to a microbe.

A very large portion of the book (sixteen lectures) is devoted to the subject of locomotor ataxy, or "tabes dorsualis," as Marie prefers to call it, and we have here an admirable and exhaustive account of that most interesting disease. The occasional association of Graves's disease with locomotor ataxy is dwelt upon, and the chapters on etiology and pathology are most thoughtful. Erb's recent statistics of 369 cases, of which 89 per cent. were due to syphilis, accord with Marie's opinion that this is perhaps the only real cause of the affection, while heredity and age hold a small share in the etiology. As regards treatment, while we should, as a rule, try the effect of anti-syphilitic remedies, we are reduced to combating symptoms—ergot for urinary troubles, the suspension treatment for inco-ordination and genital symptoms, and analgesics for pains.

After discussing the various hypotheses to account for the changes in the cord, Marie believes that the lesions in tabes are not due to a primary systematized sclerosis of the posterior columns, but to a degeneration originating in the posterior root-fibres, which itself is due to an alteration in the spinal ganglia and in the peripheral ganglion-cells.

Lectures thirty and thirty-one deal with Friedreich's disease, and the last lectures with infantile paralysis and amyotrophic lateral sclerosis.

One's feeling after reading this work is the desire that the author should complete the task which he has so well begun by including other diseases of the spinal cord in a second volume.

The book carries with it throughout the impress of thoroughness, and of an extensive practical experience with the diseases treated therein. While recording the work of other observers in the field of nervous pathology, the author, whose reputation is great, has freely embodied the results of his own observations, and this adds considerably to its value. Of the easy, graceful style of the author, and of the good illustrations scattered throughout the work, one can but speak in terms of high praise.

Clinique des Maladies du Système Nerveux. Par M. le Prof. CHARCOT. Paris: Veuve Babé et C^{ie}. 1892.

This is a welcome contribution to the diseases of the nervous system from the prolific pen of Prof. Charcot, and a worthy addition to his already numerous volumes on the subject. It is for the most part a record of clinical lectures delivered, and of cases observed, at the Salpêtrière between 1889 and 1891, and reported by M. Georges Guinon, chef de clinique, and other of Prof. Charcot's assistants.

The twenty-three chapters into which the book is divided teem with interesting observations; the details of the cases are most copious, their salient features, diagnosis, treatment, etc., are discussed in that fluent, incisive, and attractive style of which Charcot is a master.

Three chapters deal with Morvan's disease and syringomyelia, which the late researches of Joffroy and others seem to show are identical, and typical cases are described in full.

Hysteria, as we might expect, has many pages devoted to it. Thus in Chapter III. we find a most interesting account of hysterical trembling in its various forms, simulating either the tremors of paralysis agitans, or of Graves's disease, or of disseminated sclerosis. In Chapter V. an uncommon complication, which Charcot calls "blue œdema," is discussed, and the fact mentioned that it may be artificially induced in hysterical cases by hypnotic suggestion. Further on, after commenting upon the prevalence of hysteria in men (especially manual labourers) as evinced by late records, Charcot gives the notes of a curious case of hysterical facial paralysis in an alcoholic subject with an unsound family history. Illustrating the difficulty which may arise in differentiating hysteria from organic brain-disease, is a case of hemiplegia with crossed ptosis due to spasm of the orbicularis palpebrarum, and Charcot draws attention to the lowering of the eyebrow on the affected side as distinguishing ptosis due to spasm from paralytic ptosis; moreover, in hysterical ptosis there is corneal anæsthesia. Finally, the last chapter of the book is given to the subject of hysterical yawning, a most graphic account of this symptom being supplemented by useful tracings of the respiration.

In Chapter IV. we find an account of ophthalmoplegia complicating megrim, of which only about twenty cases have been published, and for the treatment of which Charcot considers large doses of potassium bromide efficacious.

Chapter VII. treats of those uncommon cases of sciatica complicated with muscular atrophy in the region of the external popliteal nerve, which are independent of traumatism or of any lesion in the pelvic cavity affecting the sciatic nerve in its course, and the pathology of which seems to be obscure.

The chapter devoted to cases of ophthalmoplegia externa complicated with general muscular atrophy is excellent, and a tribute to the clinical acumen of the author.

Diabetic paraplegia is the subject of Chapter XIII., which in most of its symptoms resembles alcoholic paraplegia.

Other chapters deal with cerebral syphilis and atypical forms of disseminated sclerosis.

We have said enough to show the varied interests of these clinical records, and the perusal of this volume cannot but be most pleasurable to the student of neuropathology.

Les Phénomènes Psychiques et la Température du Cerveau.
Par le Prof. A. Mosso. Turin: Hermann Loescher. 1892.

This is a reprint of the Croonian Lecture (March 24th, 1892), published in "The Phil. Trans. R.S.," t. clxxxiii., p. 299.

By means of very sensitive mercury thermometers, especially constructed by Baudin, of Paris, Prof. Mosso is able to record minute differences of temperatures—even $\frac{1}{1000}$ °C.—and by careful tracings the temperature of the blood in the brain, the carotids, the uterus, etc., are compared and contrasted at any given moment.

By successive experiments performed upon dogs under the influence of laudanum, or chloroform, or chloral, Prof. Mosso draws important conclusions respecting the production of heat in the brain by psychical phenomena, and the effect of certain agents and drugs on the metabolism of brain-cells.

In a partially narcotized dog, for instance, a psychical stimulus (a noise) produces an appreciable, though very slight, elevation in the temperature of the brain, but the effect of the induced current is much more marked.

Consciousness, even in the absence of definite or objective mental work, involves in itself an active metabolism in the brain-cells, and the development of heat in the brain during the conscious state is, according to Prof. Mosso, considerable, and greater than that generated by the muscles during rest.

Opium and other narcotics markedly check metabolism in the brain-cells; cocaine and strychnine, on the other hand, favour metabolism and cause increase of temperature, without necessarily producing evident physical activity.

Mosso concludes that sleep is not due to mere alteration in the circulation of the blood, as is widely believed, but with psychical processes it is dependent on chemical metabolism in the brain-cells.

Prof. Mosso's experiments and results are most interesting, and we can but look to their extension with hopeful pleasure.

The Life of William Cowper. By THOMAS WRIGHT, Principal of Cowper School, Olney. T. Fisher Unwin, London. 1892.

We are obliged, in consequence of the press of matter, to postpone to the next number our review of this work, which we commend to readers interested in the insanity of the poet. The subject is one which has long engaged our attention, and we intend entering at some length upon the study of Cowper's mental affection.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Asylum Reports for 1891-92.*

(Continued from p. 128.)

Leicester and Rutland.—The rate of mortality was high—14 per cent. on the average number resident. There was an epidemic of diarrhœa, which caused four deaths. Forty cases of influenza occurred, and several deaths were due to the sequelæ. The cause of the outbreak of diarrhœa was not discovered, though Dr. Higgins was assisted in his examination by the Medical Officer of Health and a hospital physician. Such outbreaks are too common in asylums, and unfortunately efforts to discover their origin are frequently unsuccessful.

Leicester (Borough).—The drainage has been completely overhauled, and it is believed that all defects have been remedied, so far as it is possible to do so. The weekly services by Nonconformist ministers are continued, and are much appreciated by the patients.

During the last four years the death-rate has been remarkably low. Last year it was only 4·3 per cent. on the average number resident.

It was resolved by the Visitors to adopt the following scale of wages for attendants and nurses :—

Attendants commence at £32 per annum and rise by £2 per year to £48 per annum; charges continuing to £52. Nurses commence at £18 per annum, and rise by £1 per year to £32 per annum; charges continuing to £35.

Limerick.—A large observation dormitory for male patients has been completed. It is evidently, from the description given by Dr. O'Neill, a handsome room, and much attention has been paid to its heating and ventilation. The work was done by the staff, assisted by patients, and under his direction and supervision.

The report by the Inspector is very satisfactory and complimentary. Only one grave fault is pointed out—the absence of an assistant medical officer. The necessity for appointing one is strongly urged.

Lincolnshire.—During the year several outbreaks of dysenteric diarrhoea occurred, due to the impurity of the water. There were also a few cases of mild typhoid due to the same cause. All water intended to be drunk requires to be boiled and filtered.

It has not yet been decided how to provide the required accommodation, whether to build an annexe to the present asylum, or a new asylum in another part of the county. A second assistant medical officer is much required. The Commissioners recommend his appointment, and it appears as if their wishes are to be carried out.

Lincoln. “*The Lawn*.”—We congratulate Dr. Russell on the presentation of a satisfactory Report of this hospital.

Various structural improvements are in progress, and others are contemplated.

A specially good feature in the hospital is the strength of the staff of attendants and nurses.

County of London.—By the authority of the Council the Asylums Committee have advertised for a site of from one to two hundred acres for an asylum to contain not more than 1,000 patients. The offers received are still under consideration.

With a view to maintaining the supply of provisions, stores, etc., up to the standard samples, frequent analyses have been made by the Council's chemist, and it has been agreed to pay the sum of £100 a year to the Council for these services.

The water from the wells at each of the asylums has also been periodically examined both chemically and microscopically. By these means a faulty main at Hanwell was discovered and replaced by a new one, and the cause of certain impurities in the well water at Colney Hatch was detected and stopped.

London, County of. *Banstead Asylum*.—It has been decided to

improve the infirmary accommodation by the addition of spur blocks, one for each sex, at an estimated cost, including furnishing, of £14,000.

The following paragraph occurs in Dr. Clay Shaw's report:—

We hear very little now from the patients on the subject of beer. They have quietly acquiesced in its withdrawal. It is difficult to gauge the effect on the physical condition of the abstinence movement, but my impression is that it has been favourable, partly by causing more solid food to be taken, and partly by a greater degree of induced mental quietude, owing to the withdrawal of what was undoubtedly at times a source of quarrelling and excitement. On the other hand, some patients have been unable to take the ordinary diet without a little stimulant in some form, and here we have been compelled either to give the required stimulant, or to change the ordinary diet into some palatable "extra." It cannot, I think, be said that the innovation has been on the economical side, but its great service, in my opinion, is the strong inducement given to persons admitted from insanity due to alcoholic abuse to abstain in future from what they have been made to see was the cause of their downfall. In the readiness with which patients have borne the withdrawal of all kinds of stimulants I see an argument in favour of the theory that insanity is caused by drink, and that only comparatively rarely is drinking the result of the insanity; not denying, as of course clinical experience does at times show, that the converse may occur. I do not recall one case during the last two years' experience in which the drink-craving has given any trouble.

London, County of. Cane Hill Asylum.—The large additions are now occupied, and the asylum contains nearly 2,000 patients. Plans and estimates have been prepared for an extra nurses' block, attendants' cottages, cow-houses, new farmyards and piggeries, assistant medical officers' office and additional quarters, additions to workshops, etc.

The transfer of 190 patients from Lancaster was effected at one time, in a special train of eleven saloon carriages. Dr. Moody believes this to be the largest removal at one time yet attempted.

It appears that he questions any happy results from the recent extension of holidays to the younger nurses.

London, County of. Claybury Asylum.—This is not yet ready for occupation.

A contract has been entered into for converting the old Mansion into an asylum for fifty paying patients.

London, County of. Colney Hatch Asylum.—The following occurs in the Commissioners' report:—

A glance at these figures, a survey of this vast building, and a review of the patients in its large wards would, we think, convince most thoughtful persons that the task of supervision, *thorough supervision*, must be beyond the powers of any individual, and yet dual superintendence was even worse. The mischief which that dual superintendence, *inter alia*, created (and which is, we fear, irreparable) in defeating the Commissioners' objections to bringing together so many patients, unhappily survives. The difficulties now existing and inherited, should be a lesson to keep down the number of patients in any asylum within reasonable limits. We have no hesitation in saying that we already see happy results from the appointment of a single superintendent to the charge of the whole asylum. . . . We press for the employment of clinical clerks in the wards, and especially for the appointment of a pathologist of experience, whose resi-

dence in the asylum is not necessary, and who, indeed, would be more useful if not withdrawn from his fellow scientists.

Dr. Seward reports:—

Towards the end of December there commenced a much more serious outbreak of influenza, the disease being of a very malignant type, and in a very large number of cases it was complicated by pleuro-pneumonia and pericarditis; inflammation of the middle ear was also very frequent, and in some cases there was meningitis. In the course of the epidemic, which lasted about three months, 71 male and 334 female patients were attacked, the deaths numbering five and 41 respectively, and the average age of those who died being 64. It will be noticed that the disease was much more prevalent and much more fatal among the women than the men. Of the staff, in addition to many cases among the officers, 25 attendants and 42 nurses were attacked; two cases among the former unfortunately ended fatally. That our staff was severely tried will be readily understood from the fact that in the last two weeks of January there were 53 deaths from all causes, and 75 during that month. The highest praise is due to all, and particularly to the nurses in the female infirmaries for their unremitting attendance upon the sick.

An advanced course of lectures on nursing has been given to those nurses who have already passed the first aid examination of St. John Ambulance Association.

London, County of. Hanwell Asylum.—The Visitors report that the most noticeable events of the year were the resignation, owing to failing health, of Mr. J. Peeke Richards, the medical superintendent of the female division of the asylum, and the appointment of Dr. Alexander as sole medical superintendent. They record their appreciation of the services rendered by Mr. Richards during his long tenure of office, and acknowledge their indebtedness to his knowledge and experience, which were so freely placed at their disposal.

The members of the medical staff instruct the attendants by means of lectures. It is hoped that arrangements may be shortly made to provide a pathological laboratory and museum, as well as a billiard room for the medical officers.

Five cases of typhoid fever occurred; two ended fatally. The well water, after chemical and microscopical analysis, was pronounced free from injurious matter, and of satisfactory quality, but suspicion was thrown upon the water mains. A new one has therefore been put in.

Concerning general paralysis Dr. Alexander remarks:—

We have year by year, with monotonous regularity, to deplore the prominence of general paralysis as a form of mental disorder in the male admissions. It may be of interest to note the numbers of both male and female general paralytics admitted during each year of the first sub-committee's tenure of office:—

In 1889 there were	31 men	(16 p.c.)	and	8 women	(3 p.c.)
In 1890	76	„	(25 p.c.)	and 17	„ (5 p.c.)
In 1891	63	„	(26 p.c.)	and 13	„ (5 p.c.)

One sees from this a great increase in both male and female general paralytics, also the disparity in the incidence of the disease in the two sexes, a disparity rather greater than usually obtains.

The continuous supervision of suicidal patients at night is now in operation.

Dr. Alexander states that concurrently with the outbreak of typhoid fever there was an epidemic skin disease of a most peculiar character, and following closely on the outbreak was an epidemic of diarrhoea and sickness, as if from the operation of some irritant poison. The actual causes of these disturbances of health could not, however, be determined. Both of those epidemics affected a considerable number of patients of both sexes, but no deaths ensued therefrom.

London. St. Luke's Hospital.—Several improvements were effected during the year. A new padded-room, of the most approved modern construction, has been fitted up. Modern bedsteads have replaced old and objectionable ones.

The Committee have still under active consideration the establishment of a Convalescent Home. During the year numerous instances arose to demonstrate the great need for this valuable auxiliary to the hospital. It has been decided to carry the balance of revenue over expenditure for the year to an account for the establishment of a Convalescent Home, instead of following the usual precedent of carrying the same to the capital account for investment in support of the charity.

An assistant medical officer has been appointed. This addition to the staff has been found most beneficial.

London. City of.—The report of the Visitors is largely occupied by the enumeration of the many structural improvements effected during the year.

It has been decided to receive private patients at a uniform charge of a guinea per week, the patients to wear their own clothes.

The following scale of annual leave of attendants and nurses has been adopted :—

Male Attendants	...	Charge	...	...	12 days.
Ditto	...	Second	...	...	10 "
Ditto	...	Ordinary	...	...	8 "
Nurses	...	Charge	...	...	14 "
Ditto	...	Second	...	...	12 "
Ditto	...	Ordinary	...	...	10 "

Dr. White continues to instruct the attendants and nurses preparatory for the examination for the certificate of the Medico-Psychological Association. Twelve passed the examination—all that presented themselves. Dr. White says that he cannot speak too highly of the theoretical and practical training in asylums. He attributes the non-occurrence of a bed sore for several years to the fact that the attendants and nurses have been told that it is a preventable disease, and have been shown how to prevent it.

Middlesex. Wandsworth.—Gratuities from the Queen Adelaide Benevolent Fund were given to 36 patients on leaving the asylum

cured. They amounted to £40 7s. 6d. Twenty-nine patients received an allowance of 10s. 6d. per week during discharge on probation.

The Committee have adopted a scale of "holiday money" for the whole of the attendants and nurses, in lieu of rations, as follows:—

	s.	d.
For one to six years' service	10	0 per week.
For six to ten years' service	15	0 „
Above ten years' service... ..	20	0 „

Plans have been prepared for the erection of a building for the accommodation of idiots. Dr. Gardiner expects good results from the separation of these persons from the ordinary lunatic patients. He says:—

The permanent good results that have been achieved by existing establishments in the education of idiots, although considerable, are not encouraging enough for me to recommend that a *very costly and elaborate* system be attempted with the object of obtaining a high standard of education, and with the hope that the idiots may be made sufficiently self-reliant as to be able on their own resources to earn their living, but I do consider that buildings and an adequate staff, such as you propose, ought to be provided to give them an elementary education, to teach them to attend to their daily wants and to employ themselves usefully, so that they may have pleasure in feeling they have some share in the common objects of life.

Montrose.—The number of patients resident continues to increase. It has been necessary to notify to the parishes in Orkney that no more pauper patients can be received.

The new hospital has been fully occupied for about twelve months, with results entirely satisfactory in all respects. The chief male sick ward is under the care of a trained female nurse, and there is also a trained nurse in the wards for the women. The new matron is also a trained nurse. Two serious epidemics of influenza occurred. Erysipelas affected one man and 16 women. The cases were generally of a mild type, and none ended fatally, though several women had relapses or fresh attacks.

Newcastle.—After much consideration the Committee have resolved to enlarge the asylum, as the already existing accommodation is too limited. They have solicited plans from architects practising in Newcastle for a new building for 350 additional patients.

Norfolk.—The sanitary condition of this asylum is being gradually improved, but it is not yet beyond reproach. During the year several cases of dysenteric diarrhoea, erysipelas, and typhoid occurred.

Concerning treatment Dr. Thomson says:—

Nothing very novel in the way of treatment has been introduced during the past year. Asylum physicians, like their *confrères* in general practice, are aware that cure of an attack of insanity or any other disease is not to be looked for in the prescription of a particular drug; excitement, it is true, can be allayed

by hyoscine, or sleep induced by chloral, etc., but those drugs merely modify a symptom, and do not prevent the malady running its course any more than an expectorant mixture will cure pneumonia or ice cure meningitis; rather is it aimed at nowadays to place the patient in the best possible circumstances to wrestle with the illness, hence the improved nursing in asylums, the liberal supply of extra diet, including good stimulants. In this connection your expenditure on spring mattresses for the hospital wards and some other wards was most advisable, and has added greatly to the comfort of the patients. I was induced to try a vegetarian diet for epileptics for a period of three months, and, without going into details or referring to the elaborate notes that this experiment involved, I may say that, speaking generally, the frequency or severity of the fits was not diminished by abstinence from butcher's meat.

Under this head I may refer to the fact that with the increasing and vexatious clerking duties thrown upon medical superintendents by the recent Lunacy Acts and Lunacy Commissioners' regulations, the treatment of patients, which I understand to be their primary functions, cannot help being in a greater measure delegated to their less experienced colleagues, the assistant medical officers; a more ill-advised and uncalled-for piece of legislation, not to speak of the almost unintelligible English in which the section is worded, than the annual, biennial, triennial, and quinquennial recertification of chronic cases it would be difficult to find; for example, A. B. has the delusion that his inside is made of brass. I know that he has this delusion, and that he will never lose it. I see him nearly every day, sometimes half-a-dozen times a day; a member of the Committee sees him once a week; his case has already been fully described in various statutory books. I have no interest in his detention, on the contrary, I want to have a high recovery rate and discharge as many patients as possible, and yet once a year he has to be brought to my office, half-an-hour has to be wasted over useless formalities, and a report sent up to Whitehall, and so on, with the seven or eight hundred cases.

While a party of working patients were unloading bricks from a wherry at the river staithe, a patient jumped into the river with suicidal intent. Attendant William Thompson, who was in charge of the party, at once jumped into 11 feet of water, and succeeded, with some assistance, in saving the patient's life. For this gallant action the Committee awarded him a gratuity of £5, and recommended him to the Royal Humane Society, who award him their parchment certificate.

Northampton. St. Andrew's Hospital.—A house adjoining the hospital grounds has been purchased, and will be used for the accommodation of male patients.

The Commissioners report that as many as 81 male patients are induced to employ themselves, and of these 61 help on the farm or in the garden. It is Mr. Bayley's intention to extend this form of exercise to many more gentlemen, as he is strongly convinced of the great value of outdoor employment as a method of treatment.

Concerning restraint Mr. Bayley says:—

One female patient was restrained on two occasions for a total period of two hours. The means of restraint used were the hands fastened behind the back with a padded strap, and the object for employing restraint was the prevention of constant bad and indecent habits, which prevented improvement in the mental and physical condition of the patient herself, and were a constant source of annoyance and disgust to all about her.

The patient, a young girl, has since recovered and returned to her home. I have always been, and still am, strongly opposed to mechanical restraint in the treatment of mental excitement, and I would never permit it until every other means of treatment had been fairly tried, but the result in this case proves that there are times when such restraint, properly used, under strictly medical supervision may be most useful.

I should state that the patient was brought from private care after having attempted to commit suicide, and that she had been in the hospital about 2½ years before restraint was tried, every other plan of treatment having utterly failed.

Northumberland.—The Committee have had under consideration the gradual improvement of the entire asylum as regards ventilation, warming, and sanitary requirements.

Concerning alcoholic cases Dr. McDowall says:—

By reference to Table X. it will be seen that no fewer than 31 patients were admitted in whom the cause of the attack was attributed to drunkenness, and there is every reason to believe that the same cause operated in several other cases. As a rule a very considerable proportion of these alcoholic cases recover, return to their homes, and, it is to be feared, too frequently to their former habits. It has been my practice for several years earnestly to warn them of the danger of their ways, and many have made solemn promises of amendment; but what proportion adhered to their good intentions it is impossible to ascertain. That some were unable to struggle against inclination and prevent temptation is proved by their return to the asylum. To diminish this evil as much as possible I have of late endeavoured to bring such cases under a kind and benevolent supervision on discharge, and have written to the clergyman of the Communion to which the patient happened to belong, stating the facts, and recommending him to his care and attention. It is gratifying to find that the clergy of all denominations have readily co-operated in this work, and have at once taken an active interest in any patient brought under their notice, and there is every reason to hope that the efforts made to benefit these people will be successful in more directions than one.

The following paragraph refers to another subject:—

A number of months ago I forwarded to each member of the committee a copy of a report of a Committee of the Medico-Psychological Association, and perhaps you will permit me to refer briefly to it. As you are aware, the question of the care and treatment of the insane has of late engaged much attention, and on some points there is some diversity of opinion, as might be expected. Still, in the great majority there is practically an agreement, and in these it appeared to the Association, which is composed of medical men specially interested in the care of the insane, that the public should know the principles which should be attended to in providing and governing asylums, in regulating their size, in appointing their officers, etc. The report appears to me of much public importance, and deserving of wide circulation and careful study. In order that it may obtain these I propose to append it to this report, and thus to bring it under the notice of the county generally. An asylum involves a large expenditure, and for buildings and structural improvements there is a continuous demand. In the administration there is, and must be, a constant struggle to keep up with modern requirements; and in the medical treatment the same efforts are demanded, so that if possible the proportion of recoveries may be increased. During your official visits, and at other times, these subjects have been brought under your notice, and I must express my deep sense of obligation for the careful consideration you have bestowed on them. It is now three years since the administration passed into your hands, and my testimony is not

required to prove the enlightened liberality which has marked your term of office, but it would be ungrateful if I failed to acknowledge your readiness to consider all questions affecting the welfare of the asylum and its inmates.

Northampton.—The deaths include three from enteritis and one from typhoid fever. The occurrence of these diseases has not been satisfactorily explained. The report of Mr. Bohn, the sanitary expert consulted, states :—

I do not think that any building in the kingdom has more perfect sanitary arrangements. All large buildings containing a great number of persons of the poorer classes are likely to have occasional outbreaks of diarrhoea, enteric fever, dysentery, etc.; and with the insane these diseases are probably personal to begin with. The fact that only a small percentage was attacked would seem to prove that the drainage was not at fault. Bad drainage is known to carry or propagate these diseases, and it may therefore fairly be presumed that the disease was not in this case attributable to any defect in the sanitary arrangements of the asylum.

I am informed that the water supply has frequently been analyzed and found free from contamination, but as my late investigations render it more than probable that some of the rain which falls at Berry Wood finds its way eventually into the water-bearing stratum from which the asylum is supplied, I strongly urge the prudence, as a matter of precaution, of diverting the sewage of the detached hospital, which is at present discharged into an open ditch, and thence into a watercourse.

Norwich.—The following short extract from the report of this Committee brings home to one the costliness of pauper lunacy :—

The total cost per head, including all outlay by the Committee on the buildings and estate, together with the additions, alterations, and improvements made during the year, has been 13s. 10d. If the interest on the outstanding loans is taken into account, the cost per head has been 15s. 6d.

Dr. Harris reports that the ambulance lectures were commenced, but did not prove a success. He has found it better to give instructions at opportune occasions in the wards, and the results, he states, have been more advantageous to all concerned.

Nottingham. County.—The following extract from the Commissioners' report will interest many :—

We hear that the auditors object to any change ever being made in the regular dietary of the patients, and therefore the monotony of giving a specified dinner on each day of the week is considered by Dr. Aplin to be imposed upon him. We hope Dr. Aplin is mistaken in his opinion of the auditors' ideas, but if he be not we hope the County Council will appeal to the Local Government Board on the matter. It must not be forgotten that the real object of an asylum is a hospital for the cure of mental disorders, and the medical officer in charge should have the same power of altering the patient's diet as he has of changing the patient's medicine.

The wages of the attendants have been increased by allowing the annual increase to continue to the seventeenth year of service instead of to the eleventh. The maximum is now £50 per annum. The annual holiday has been lengthened, and is now ten days instead of seven.

Nottingham. Borough.—Dr. Powell reports that in cases of

insanity following influenza the prevailing type of this disease was melancholia of a very acute form. It usually ran a favourable course, and terminated in recovery. One case, however, did not survive more than three days, but died of acute pneumonia, from which she was suffering on admission.

Nottingham. Lunatic Hospital.—The Commissioners point out that it is to be regretted that magistrates should sign orders for detention without first seeing the person for whose detention they are the authority, as when a patient is fairly intelligent he claims his right to be seen by a judicial authority, and the patient has to be taken to see some magistrate very shortly after his admission to the hospital, which is the time when it is of great importance that he should be as little disturbed as possible, his early recovery being very likely retarded by the excitement thus needlessly occasioned.

Oxford.—It can scarcely be contended that the Committee of Visitors erred on the side of liberality when, after careful inquiry, they increased the salary of the medical superintendent by £24 a year.

Perth. James Murray's Royal Asylum.—The following are extracts from Dr. Urquhart's interesting report:—

The home treatment of insanity gains favour year by year. Not of the ancient type—the unintelligent imprisonment of a lunatic in the least desirable room of the house—but the rational adoption of means that have been approved in the best hospital experience. Even in those huge aggregations of the pauper insane in densely populated districts efforts are being made to separate and differentiate the wards—to sink the institution in the home in so far as is practicable. Much more so in hospitals of this class, where the idea of a central hospital with succursal houses, constantly promulgated for many years by Dr. Lauder Lindsay, is almost universally carried into effect. Our experience has been all in favour of this principle of management. The houses complementary to the main asylum have now been in occupation for a considerable period, with benefit to patients and staff, and with satisfactory financial results. There can be no doubt that the margin of cure and contentment is thus enlarged, and that any further accommodation required by this institution should be obtained by extension on these lines.

There have been ten actively suicidal and four dangerously homicidal patients under care during the year. These difficult cases present serious problems of management, and their treatment is embarrassed by their destructive attempts. The constant vigilance required, the perennial trial of patience and endurance, the demands on tact and temper, which are all in the day's work of an asylum attendant, are very inadequately recognized by the world at large. But it is even easier to bear with the abuse of an actively insane patient than to keep up constant warfare with the destroying angel of dementia. Nothing can be more detrimental to the insane than apathetic and selfish management in nursing. A great deal has been done of late to improve the position of attendants, and this institution has not been behind in promoting their educative, social, and recreative interests; but it is undoubted that further advances must be made in this direction if the asylums of this country are to maintain their place in the vanguard of progress.

Roxburgh, Berwick, and Selkirk.—The water supply has always given trouble in this asylum. The quantity has all along been

insufficient, and the quality of some of the sources is distinctly objectionable. Steps are being taken to rectify these serious defects.

Dr. Johnstone reports that significant indications continue to be afforded (by the occurrence of various cases of illness of an "insanitary" type) that the institution is not in a satisfactory hygienic condition. It is gratifying to believe that this state of affairs will not exist much longer. As the result of their inspection of the asylum the Edinburgh Sanitary Protection Association have reported that extensive changes are called for in its sanitary arrangements. The recommendations of the Association have, with some exceptions, received the sanction of the District Board, and the necessary works will, it is expected, shortly be commenced.

Salop and Montgomery.—A new supply of water has been obtained by sinking a well. The report of the analysts was of a most satisfactory character. During the year three cases of typhoid fever occurred, but they all recovered.

Somerset and Bath.—This asylum, in spite of the ninety patients boarded elsewhere, continues to be overcrowded. Another asylum is to be erected. The plans have been prepared, and working drawings have been ordered to be got ready as speedily as possible. Among the additions and alterations may be mentioned the new stores and offices, which are nearly ready.

Staffordshire. Lichfield.—The erection of a third asylum for this county is under discussion, at any rate, is being talked of. In connection therewith Dr. Spence says:—

As the provision of suitable accommodation for the care and treatment of idiot and imbecile children is a burning question at present in many counties, perhaps it is not out of place to suggest that advantage might be taken of the contemplated erection of a third asylum for this county to consider whether it would not be well to build in connection therewith a detached block specially adapted to the requirements of the class of patients referred to. This would supply a long-felt want, would satisfy a very distinctly-expressed public demand, and would be of much benefit to the inmates themselves, though probably not to the extent that is generally supposed to be the result of the training of such cases.

Staffordshire. Stafford.—In his report Dr. Christie says:—

The question of wages and hours of duty of the attendants was also considered by the Committee, and a scale of pay adopted which is a distinct improvement on the old; at the same time increase of leave has been granted, and besides the annual fourteen days, each attendant and nurse has half a day in the week. Of course, to carry this out a considerable increase had to be made to the staff, but the object for which it was done is so deserving and well-merited that surely the necessary increase of expenditure which it entails is justified. The time is yet too short for me to express an opinion as to the probable effect these inducements will have in attracting and retaining suitable and trustworthy people in the asylum service—it is to be hoped it will be beneficial—but at the same time one cannot shut one's eyes to the fact that the duties are so peculiar and so trying that changes, more frequent than one

would desire, are sure to take place, however good the wages and emoluments may be.

Sussex.—This asylum is still insufficient for the accommodation of the insane belonging to the county. In his report Dr. Saunders says:—

It is a question whether the wording of the Justices' order in the Lunacy Act, 1890, describing the patient either as "a pauper, or *in such circumstances as to require relief* for his proper care and maintenance," may not have opened still wider the door for persons well able to pay a moderate sum for treatment in a non-pauper asylum. There is no doubt that persons on whose behalf application has been made by the relatives for admission as paying patients, and who have had to be refused as such, have subsequently been admitted as paupers, showing that the words "requiring relief" have a very elastic interpretation. Such patients do not become chargeable to the rates, because the Guardians recover the cost of their maintenance, but they help to fill the already overcrowded asylum.

Warwick.—The extensive alterations in the sanitary arrangements are nearly completed, and it is reported that already a marked improvement has occurred in the health of the establishment. The following are extracts from Dr. Miller's report:—

I cannot report any great advancement in the medical treatment of the patients. New drugs are tried, and too frequently found wanting. Sedatives and hypnotics, the use of which can very easily become an abuse, are the drugs to which I allude more especially, as they are no doubt a very necessary adjunct to our treatment, and in acute cases are very useful; but when they are used in chronic cases to control, or more properly to stupefy the noisy and troublesome, I think it is there that the abuse may come in, and, as regards restraint, I fail to see any real difference in controlling the violent patient mechanically, and in submitting him to a course of drugs which in many cases materially affect the constitution.

The best means of treatment I consider consists in providing bright and cheerful wards, well warmed and ventilated, steady and well-trained attendants, as liberal and varied a dietary as lays in our power, and every opportunity that can be afforded for work and healthy recreation.

Personally I am strongly averse to very large asylums, and this opinion is held by many senior men in my profession, whose long experience must necessarily bear considerable weight. In order to satisfactorily carry out the meaning of the recent Lunacy Act it appears that the patients must be looked upon and studied as individuals requiring careful treatment. Medical superintendents must necessarily bring themselves into closer contact with their patients than was previously thought sufficient, and I am led to believe that the capabilities and energy of a man of ordinary calibre will be sorely strained when he is asked to administer to the requirements of a population exceeding 1,000. The co-operation of hard-working, intelligent assistants will not meet the case, however willing and zealous they may be. It is all important that the superintendent should be acquainted with all his patients and some of their history, and the special points of each individual case.

In a former report I pointed out that there would be a tendency all over the kingdom to improve the condition of the pauper insane, and that the weekly cost would probably be higher. Last year the average weekly cost for county asylums was 8s. 7½d., and I expect that next year we may see a still further increase. For my own part I am glad to see it, as it shows that the day for "cutting down" asylum maintenance to below what it should be is fast dying out, and I think so much the better for the ratepayers, and the greater the

difference between asylums and workhouses (the former being made as much like hospitals as possible) the greater the ultimate saving effected, as it must be utterly wrong to imagine that people who are physically and mentally incapacitated can be expected to recover from their malady if they are not fed and cared for to a greater extent than if they were in a healthy state.

Wilts.—Among other important structural additions and improvements, the ventilation, drainage, and water supply systems, and the disposal of sewage are being thoroughly brought up to modern requirements, at great cost, under the charge of Mr. Rogers Field. It is proposed to build a new chapel, and to use the old building as mess and recreation rooms for the attendants.

Concerning pensions the Committee report:—

The question of granting superannuation allowances to operatives and labourers employed at the asylum has given rise to a good deal of discussion. The Committee consider that the work of the officials and attendants employed in the asylum, who are much in contact with the insane, entitles them to look forward to a pension, on the conditions laid down by the Act, and they are glad to find that the Commissioners in Lunacy in their last report (p. 99), after fully considering the question, have come to the conclusion that the system of moderate salaries with superannuation allowances has had a fair trial in the past, and with satisfactory results, and they deprecate any departure from it. But the Committee do not consider that those employed as labourers, operatives, or artisans can at all be considered as entitled to such allowances. They all receive the full current rate of wages, they are only partially brought into contact with the insane, and with such of them only as can be safely trusted out of doors, and their duties and responsibilities do not require the exercise of the qualities of intelligence, tact, patience, and self-control which are looked for in the attendants. Applications for pensions made during the past year by a plasterer and a carter have been refused.

Worford House.—Dr. Deas reports:—

By a rare coincidence three cases—all ladies—have been under care, to whom I did not hesitate to apply “mechanical restraint” as the best and most humane treatment. The object was to limit the use and movement of the hands or arms, or both, and the means used were soft padded gloves, the sleeves of the dress closed at the end, or the sleeves attached to the side of the dress. In two of the cases the object was to check flesh-picking or rubbing, a habit for which I believe restraining the hands is the only effectual remedy. In one of these the restraint was necessary for about six weeks. The patient has now been free from the habit for ten months, and is mentally considered improved. The second case was more inveterate. Restraint was employed during three months; there was then great improvement during five or six months; then for a month it was necessary again. The patient has now been free from the habit for five months, and is greatly improved. The third case was of a different character. It was characterized by constant struggling and violence, and attempts to injure herself and others, and was one of the very worst cases that has ever come within my experience. The great value of restraint in this case was as a conservative agent, saving the patient from the exhaustion of constant struggling, allowing her to have exercise regularly, and to be managed with much less risk of injury. In this case restraint was employed during two months; then for three months there was considerable improvement; then a relapse, and restraint was employed during three months. During this last attack the patient was for some time in a most precarious state, and yet would struggle; then improvement began, and has continued steadily for three months. She is now strong and active, and mentally apparently con-

valescent. I firmly believe that this patient's life, and probably her reason, have been saved by "mechanical restraint." I need hardly say that this restraint in these cases was not continuous, usually employed only for a portion of a day, and dispensed with from time to time, as a trial, according to circumstances.

No bad effect whatever seemed produced on the patient's mind by the restraint, and only one of the cases seemed to feel it irksome, and this became a useful moral agency in checking the morbid habit. The third case never complained about it, and it was remarkable how much the excitement and tendency to struggle ceased as soon as her arms were not free, nor since the great improvement in her condition does she allude to the matter, or show any sign of its having produced a painful effect on her mind.

I have alluded rather fully to these cases, because there is still a tendency in some quarters to blame anyone who honestly uses "mechanical restraint" as treatment, and a remedy where other means are inadequate or fail. To refrain from its use in such cases as I have described is certainly a policy of masterly inactivity; but it might also be called a policy of fear.

Worcester.—Buildings for the accommodation of 140 male patients are in process of erection. Three pairs of cottages for married attendants are nearly ready for occupation. The water supply is still unsatisfactory, but the Committee have agreed to postpone the consideration of this very important matter. The amount of leave of attendants and nurses has been increased, and a new scale of wages came into force on the 1st April.

An important legal question has been raised by the Auditor upon the construction of sub-section ix. of the 269th section of the Lunacy Act, 1890. The sub-section referred to provides:—

That where a reception contract has been made by a Visiting Committee the Local Authority for whom the Visiting Committee acts shall, while the contract subsists, defray out of the County or Borough Fund so much of the weekly charge agreed upon for each pauper lunatic as in the opinion of the Visiting Committee represents the sum due for the accommodation, not exceeding one-fourth of the entire weekly charge, in exoneration to that extent of the Union to which the maintenance of any such pauper lunatic is chargeable.

The Committee report on this subject:—

In Mr. Roberts' (the auditor's) opinion so much of the weekly sum paid for the maintenance of a pauper patient under a reception contract as is in excess of the sum received, under the sub-section of the Lunacy Act above quoted, from the Local Authorities for whom your Committee act, should be charged to the Union to which the maintenance of each pauper patient boarded out at another asylum is chargeable. It has been the practice in this asylum, as at others in the kingdom, to charge the extra amount not covered by the sum received from the Local Authorities generally to maintenance account, thus spreading it over the whole of the Unions within the county and city, though at some asylums it is understood it is charged to repairs account.

Your Committee have submitted this question to the Local Government Board, who concur in the view expressed by their auditor. It appears to your Committee that where particular patients, whose cases permit of their being more conveniently sent to, and being boarded out at, another asylum, and have thus relieved the other patients in the asylum from the dangers and risk of overcrowding, a step which, up to the present time, has relieved the contributing authorities from the cost of extra buildings for the accommodation of from 30 to 50 patients, who could not be provided for within our own asylum, the Legislature would hardly have intended that the Unions from which such patients may be selected to be sent to another asylum should be called upon to

pay the extra charge incurred thereby. This matter will receive the very earliest consideration of your Committee, and they propose to communicate with other asylums with a view to taking such combined action to remedy what appears to be a very anomalous state of the law in the above respect.

The following interesting case is recorded by Dr. Cooke :—

A female patient was admitted who stated, both before she left home and soon after she came here, that she had thrust a darning needle into her stomach in the hope of committing suicide. Successive examinations failed to discover the presence of a needle, although, from time to time, the patient had serious abdominal symptoms of obscure origin. After several months she improved somewhat, but in the early part of 1892 phthisis set in, of which she died about a year after admission. A *post-mortem* examination was made, and, partly embedded in the liver and partly lying between that organ and the angle of the ribs, a large darning needle was discovered. Though not directly, the needle was undoubtedly indirectly the cause of death, for the irritation and suppuration which it set up caused disease of the abdominal glands which ultimately resulted in phthisis.

Yorkshire. North Riding.—A new asylum is to be erected by the Borough of Middlesbrough for the accommodation of its lunatics. This will afford relief to the over-crowding experienced at Clifton.

Tenders for the erection of a new detached laundry for the sum of £7,368, exclusive of machinery and fittings, were accepted. The machinery will cost £1,369, and a new boiler £285. The works are well advanced.

York. The Retreat (1891-2).—The Committee have to report a deficit of nearly £900.

In bidding farewell, after eighteen years' service, Dr. Baker says :—

I cannot conclude this, the eighteenth and last report of my superintendence of the Retreat, without a throb of deep emotion. Indeed, I should be less than human if I could do so. Believe me, I am profoundly grateful to all those many friends who have governed this hospital, who have extended to me innumerable deeds of kindness all through the lengthened period of my imperfect ministry. It is no formal expression of words that it is my earnest desire that under the new *régime* this hospital may continue to prosper, and that its influence may ever continue to be exercised in attempting to minister, in the highest sense of the word, to the many necessities of the insane.

The reference to the interesting celebration of the Centenary is somewhat curt, having regard to those who a century hence will refer to this Report for information.

Yorkshire, West Riding. Menston.—The male mortality was unusually heavy. This was chiefly due to a severe attack of dysenteric diarrhœa. Forty-two patients were more or less affected, and exactly half of them died. It is believed that the disease was imported, and that it spread by infection; all the cases occurred in one block.

This asylum is nearly full, and plans for large chronic blocks have been prepared. Much continues to be done to bring this new asylum into good working order.

A pathological laboratory and a photographic studio have been completed, and a good beginning has been made towards obtaining the necessary instruments.

All the candidates, 16 in number, for the nursing certificate of the Medico-Psychological Association succeeded in passing the examination.

Yorkshire, West Riding. Wadsley.—Most successful efforts continue to be made to maintain this asylum in the highest state of efficiency.

A qualified dispenser has been appointed. The lectures and instruction given by the medical officers to the attendants and nurses, with the object of training and rendering them more efficient in the discharge of their duties, have been continued. Already good practical results are seen in the better nursing of the recent sick and feeble cases. The medical staff has been increased by the appointment of another assistant medical officer. By the necessary structural alterations a great improvement has been effected in the arrangements for the recent sick and acute cases on the male side.

The pathological laboratory and photographic room have been completed, and now afford to the medical staff the necessary means and facilities for acquiring useful and scientific knowledge.

Yorkshire, West Riding. Wakefield.—This great asylum also continues to be directed with conspicuous enterprise and success.

It is reported that the out-patients' department continues in active operation, and has been supplemented by a scheme of private nursing on a small scale. Among the structural improvements effected or in progress is a nurses' residence.

The following paragraph is from Dr. Bevan Lewis's report:—

The visitation of a preventable disease, such as small-pox, whose incidence upon a community so lowered in vital resistance (such as an asylum population) would be fraught with such serious results, calls for restrictions of the most rigid character. When the necessary commerce between the asylum and outlying districts is considered—the difficulties encountered from a non-resident staff of attendants—the unavoidable contact at times of parochial officers with infected subjects, delegated for the common duty of dealing with fever cases, and the removal of lunatics to asylums—the caution and reserve with which even medical certificates of freedom from infectious disease in recent admissions must be taken—it must be emphasised that the duties are sufficiently onerous and harassing without the introduction of any further difficulty. I would very clearly state my conviction here that the interests of union and asylum authorities upon the question of removal of such fever-infected cases (suffering from mental disease) to asylums is a *common interest*, best served by a *rigid exclusion* of such cases, and that any suggestion that cases of insanity suffering from fevers, such as small-pox, should be received into our asylums and properly provided for by isolation hospitals is, I consider, open to the gravest objections. To the uniform and continued support I have received from my Committee in the exercise of these somewhat invidious duties I can alone attribute our successful isolation from this malady.

Concerning the instruction of attendants and nurses Dr. Lewis writes:—

A class for nursing and ambulance lectures was commenced here early in the spring for the female attendants, under the supervision of my colleagues, Drs. Goodall and Dunn; and subsequently a similar course of training and lectures was given through the winter months by Dr. Bullen to the staff of male attendants. Considerable interest was maintained in these lectures—a very fair attendance secured—and at the examination in November last eleven nurses secured the certificate of the Medico-Psychological Association. The Committee provided class books and such other requirements as were demanded for this very desirable movement, which is now being adopted very generally in English Asylums. This attempt at training the nursing staff towards securing an *intelligent* interest in their work is, I think, a very hopeful sign of the times, and cannot but issue in the best results; a community of sympathy—far more substantial than a mere sentiment—is established betwixt nurse and patient; the former is encouraged to develop her best interests—to look forward to higher spheres of duty—whilst her systematic training develops habits of care, vigilance, thoughtfulness, and self-control, which it is impossible to overrate as desirable qualities in a mental nurse. Moreover, I am much mistaken if this movement does not indicate the approach of that general wave of change which has long been anticipated as likely to transform our asylums into *veritable* hospitals for the insane, awakening those latent potentialities which are undoubtedly available for the future welfare of English lunacy.

Reports Subsequently Received:—

Birmingham City Asylum, Winson Green.—The report of Dr. Whitcombe for the year 1892 contains a notice of two deaths which call for special remark.

A patient (J. A.) was admitted at mid-day, and having no history of dangerous proclivities, nor exhibiting any, was put to sleep at night in a dormitory with four other patients, where he would be visited every half-hour. Suddenly he jumps out of bed, pulls one patient out of bed, and jumps upon him, then strikes another with a chamber utensil, and pulls him out of bed, and is arrested by a night attendant just in time to save a third patient from his violence.

Such an event could not possibly have been foreseen, and, in fact, it would be difficult, if not impossible, to parallel it in asylum experience. It is one of the risks which must be run in the management of the insane. Had there not been a night attendant, another life at least would have been sacrificed to the sudden fury of the newly-admitted patient. In fact, a large staff of nurses is the only practical means of rendering fatal assaults infrequent. Although not a particle of blame can possibly attach to the Medical Superintendent, the sympathy of all engaged in the treatment of the insane is, we are sure, felt for Dr. Whitcombe under the worry caused by the painful circumstances which have occurred.

Psychologically the case is of great practical interest, on account of the suddenness of the assault, and the determination to kill persons who, being complete strangers, can have hardly been associated with any delusions in the patient's mind. Dr. Whitcombe writes:—

The act was one of sudden homicidal impulse, arising in a patient who had previously shown no signs of being dangerous, but, on the contrary, exhibited symptoms of exaltation, and was in a benevolent frame of mind.

It would be interesting to know all particulars in regard to the past history of J. A., and in the future to be informed what course the mental malady has taken.

Broadmoor.—Dr. Nicolson reports that in 1890 the Council of Supervision brought the inadequacy of the accommodation on the female wing to the notice of the Secretary of State, and the result was that the Treasury sanction was received to carry out an extension of this division of the asylum at an estimated total cost of £8,855. The work was commenced in 1891, and one portion of the extension, together with certain alterations, has already been constructed. It consists of an addition to the south front of block 2, 90ft. in length, and includes 12 single rooms, sculleries, and staircase.

A Departmental Committee of Inquiry into the pay and position of prison warders and of the subordinate staff at Broadmoor Asylum sat during the year, under the presidency of Lord de Ramsay. The recommendations of the Committee resulted in sanction being given by the Treasury to an increase in the scales of pay for the various grades of male and female attendants and others ranking with them.

Dorset.—Dr. Macdonald directs attention to the evils of sending recent cases to workhouses. He says :—

Notwithstanding that the admissions generally were of a more favourable class, the numbers admitted at an early stage of the disease were fewer. There would seem to be an increasing tendency in the direction of sending acute cases to the workhouse, which system cannot be too strongly condemned. Apart from the injury done to the patient by loss of time, it is hard to explain the rationale of keeping a case in the workhouse, where there is no proper staff, and where the treatment at best can be but tentative. It is the invariable custom in certain unions to send all reported cases to the workhouse, where they are detained for weeks, nay, for months. Sooner or later they are sent to the asylum, and for one or both of the following reasons : First, because no improvement has taken place ; or, second, on account of the case being too troublesome. Unfortunately many of these cases are far from hopeful by the time they reach us, and it does seem hard that even the poor should be deprived of asylum treatment at the most favourable stage of the disease, because of some lingering parsimonious object. Reflection on this retrograde system reminds us of the old saying, "Neglect a cold and in walks the doctor, to be followed by his bill." How often does it occur to those who fail to obtain the best possible treatment for the mentally afflicted at the commencement of the disease, that to neglect the early symptoms of mental disease means insanity.

Dr. Macdonald is fortunate enough to be able to record the recovery of three chronic male cases.

We are often told there is no chance of a patient being discharged recovered after having been in the asylum for a few years, but that this is happily not the case we shall be able to prove. During the past year three male patients were discharged as recovered after a residence of many years, and, from repeated inquiries, all are doing well, and have regular employment. These men had been patients here for 10, 11, and 12 years respectively, and it was not till within twelve months of their discharge that any actual improvement was noticed. For years two of the cases were troublesome in every sense of the

word, having—among other episodes—made several attempts to escape. It was an indescribable pleasure to witness the change in the conduct and character of these men when the mind began to regain its normal standard. No more grumbling, no more deceitful ways and methods, no more abuse of the authorities; they became sociable, agreeable, obedient, and willing, and when they left the asylum were full of thanks and kind words. In neither case were we accused of not discharging the patient when recovered, because the friends were reasonable people, and would it were so more frequently.

Glamorgan.—Plans have been prepared for extensive and much-needed enlargements, but money cannot be obtained, as the contributing bodies cannot agree.

The following paragraphs are from Dr. Pringle's report:—

In this, as in former years, I have had to deplore the admission of epileptics, who have been so from childhood, and yet had married and become parents. One woman lately told me she had got married because "everybody" told her if she did so the fits would leave her. I have seldom an opportunity of testing the mental capacity of the partners of such people, as I generally find, on inquiry, that they have gone to America or some other distant place as far away as possible from their unhappy mates, and have left their miserable offspring to be maintained by others; and I do not wonder much, since to be tied for life to one of these unhappy creatures is more than can be expected from any average mortal. The deplorable ignorance and recklessness displayed by such marriages, and the grave consequences to the children born of them, and the ratepayers, to whom many of them become permanent burdens, make me often think that the schoolmaster is abroad to little purpose, and that it ought to be made a criminal offence to enter into such marriages, or for anyone to celebrate or register them.

I have lately been endeavouring to make the surroundings of the attendants at both asylums more agreeable by improving their sitting and bedrooms, and have been most kindly supported by the House Committee in so doing. I cannot say that as yet much success has attended those efforts, so far as making them more settled is concerned, as the changes of the year have been numerous and vexatious. Prosperous times outside our institutions always result in many changes, as the men leave for higher wages in the ironworks and collieries, and more marriages occur amongst the nurses. I am confident, however, that our efforts are in the right direction, and will gradually tend to induce a better educated and more refined class to enter the service. On the whole the general conduct of the attendants and nurses has been good, and if a black sheep does now and again get into our fold, it is not much to be surprised at amongst so many.

Ipswich.—The reports by the Committee of Visitors and the Medical Superintendent are chiefly noticeable for their extreme brevity.

Lancashire. Lancaster.—The following is a quotation from Dr. Cassidy's report:—

In former periods of our history a spirit of emulation was encouraged, and there was every possible freedom of development, with the result that English asylums have taken the first place among the asylums of the world. It seems now to be considered that we require the restraining influence of an autocratic official (the auditor appointed by the Local Government Board), who holds up before himself and before us that grand ideal—Uniformity. I am not myself inclined to fall down and worship it, nor do I care for the Government-office, the diet of parchment and red-tape. This central audit of asylum accounts is an expensive mistake, entirely unsuited to asylum needs, and must, I think,

have slipped into the Local Government Act by some mistake. Surely it will be promptly ended or mended as soon as this is recognized. That the Lancashire Asylums Board or a Visiting Committee should not be able to give a gratuity under many circumstances which may arise seems to me to be monstrous. If it really is so in law, which I do not believe, the sooner the law is altered the better. A minor objectionable matter is the difficulty and delay which seems to exist in obtaining the sanction of the Local Government Board to loans. Thus, our fire protection works were regarded by the Committee as urgent, but after the plans and proposed expenditure had been sanctioned by the Committee, by the Central Committee, by the County Council, by the Commissioners in Lunacy, and by the Home Secretary, we had to wait for several months for an inspector to come down and hold an inquiry before we were allowed to obtain a penny to pay for them.

Lancashire. Prestwich.—We are accustomed to talk of certain lunatics as harmless, but every now and again events occur which tend to make us use that phrase with extreme caution. Dr. Ley mentions a case which refers to this subject.

The other suicide was in the case of a man who injured himself so severely in the head that he died from the effects some weeks afterwards. This also occurred in a patient not suspected of harbouring suicidal tendencies; in fact, the man had so much improved mentally that he was recommended for discharge at the approaching meeting of the Committee. He had been employed at his trade of brick-setter for some months previously. One day, when at work, he suddenly took an axe from a joiner's bag and struck himself several severe blows on the forehead, penetrating the bone. The injuries to the head progressed favourably, but symptoms of brain mischief developed themselves a few weeks after the occurrence, and rapidly proved fatal. The patient admitted that his only motive for committing the act was annoyance at not having been visited by his friends on the previous day. These cases emphasize the fact that a lunatic, however quiet, docile, and apparently harmless he may be, will often upon the slightest provocation, and sometimes upon no provocation at all, become the prey of sudden impulses, which render him dangerous to himself or to others. How far a suicidal or homicidal taint underlies the mental disorder it is impossible to say—some authorities assert that it is present in all cases, though it may be less developed in some than in others. There is much in the records of this asylum to bear out this theory, and it is a curious fact that all the accidents which from time to time have occurred here during the last twenty years have, with one exception, taken place among patients whose previous histories, conduct, and behaviour afforded no warrant for suspecting them of harbouring any dangerous propensities.

Lancashire. Rainhill.—Several cases of typhoid fever occurred during the year. One patient and two attendants died. A pathologist has been added to the staff.

The following paragraph occurs in Dr. Wiglesworth's report:—

Two of the male patients admitted during the year were discharged as not insane, their insanity having been assumed for the purpose of obtaining admission into the asylum. They both have been in this institution before, and one of them, at least, in numerous other asylums throughout the country. They are both also thoroughly familiar with the inside of prisons. Although there was no question about their insanity having been assumed, previous experience having convinced them of the superior comforts of asylum life as compared with that in prisons, and though they were, hence, not insane in the ordinary acceptation of the term, there can be no doubt that they both possessed erratic, unstable mental natures, which brought them into rather close proximity to the borderland of insanity. They were, indeed, but types of many more in the great

criminal class from whence they were drawn, in whom it is often a matter of no small difficulty to determine the dividing line which separates badness from madness. Although we are still far from the idea that all crime is insanity, and should be treated as such, nevertheless evidence is continually accumulating which tends more and more to show that no small number of our criminal classes are, as regards the social side of their nature, nothing but moral idiots and imbeciles, who, by virtue of the defective brain constitution with which they are born, are alike without the moral feelings which are supposed to be innate in the race, and who are more or less incapable of acquiring them. Upon individuals such as these kindness and sternness, reward and punishment, are alike thrown away, or are operative only within narrow limits. For persons so constituted the discipline of prison life has too much of a punitive ring about it, whilst at the same time the constitution of existing asylums is not adapted for their reception. An intermediate institution, which might combine the restraint of the one with the moral training of the other, would perhaps more nearly fulfil the requirements, and thus society may some day find it more profitable to endeavour to train its moral imbeciles than simply to seclude them and turn them loose at stated intervals to demonstrate anew their anti-social natures.

Lancashire. Whittingham.—The following are Dr. Wallis's ideas relative to the treatment of habitual drunkards:—

Intemperance in drink seems to figure, as in 1890, rather more prominently than usual, accounting for 22 per cent. of the admissions, and perhaps for more if the histories of the unknown cases were cleared up. This is certainly one reason why the recovery rate is higher than usual, for the insanity due to drink is certainly favourable in character as to prospect of recovery when the habit has only been recently acquired, and the patient is kept for a time absolutely free from the poison. On looking through the discharge-book, intemperance in drink is certainly seen as the cause of the illness far too often, and it is not unusual to see the same person figuring twice in the same year. Promises of amendment are easily made, but I have no faith in them, *unless total abstinence is resolved upon and adhered to*, when a permanent recovery may be relied upon. It seems to me, in these days, when social legislation is, happily, in everybody's mind, that some steps should be taken to save the drunkard from himself, for his own sake, and, even more urgently, for the sake of his family. Persons of means have their inebriate hospitals and homes to go to, and their families are not, as a rule, reduced to want and misery on this account. For the intemperate among the wage-earning classes no provision has as yet been made, and it is in these classes that the want of some suitable provision is felt most acutely. Habitual drunkenness is a crime against society, and requires punishment. The drunken parent robs his family of food, clothing, and comfort to indulge in his debasing habit, and offers his children a lamentable example, which they, in their turn, but too frequently follow. Nothing short of compulsory detention of the habitual drunkard for a considerable period is likely to do any permanent good. Under these conditions he should be compelled to work, and be made not only self-supporting, but to contribute to the support of his wife and family as far as possible. As it is a drunken man is allowed to go on until his health is destroyed, his children neglected, half-starved, and stunted in growth and constitution, some of them flighty and unstable in mind, or perhaps actually idiotic or epileptic. When he has worked all this mischief he is sent to the asylum, first, perhaps, for a short visit, again for a longer visit, and finally for the rest of his life, a burden to himself and the ratepayers. Temperance methods do not reach the great majority of victims to intemperance, and public institutions for the treatment of the habitual drunkard should be provided.

Midlothian and Peebles.—The rate of admissions continues high. Dr. Mitchell considers that the causes of the high admission-rate

in recent years are obscure and complex, but he has no doubt that the low rate of board for pauper patients accounts for the increase in this class to some extent, but not altogether.

Suffolk.—Many structural defects still exist here, but something is being done, though very slowly, to improve matters. The building is overcrowded, and does not provide the accommodation required. The sanitary condition is still very unsatisfactory. A new water supply is in process of being "laid on," but unfortunate delays have occurred in obtaining the necessary machinery. The manner in which necessary work at the asylum is delayed is mentioned by Dr. Eager:—

Though the plans for the new infirmaries which it was decided to erect as the best means of securing further accommodation were laid before the Committee on the 28th of April (1891), and were forwarded to the Commissioners in Lunacy on the 9th May, it was not until the beginning of September (1891) that they received the sanction of the Home Office. They were then forwarded to the Local Government Board, where they were detained until January of the present year, when the sanction to the raising of the loan was given.

Notwithstanding, however, that on February 6th of the present year a tender was accepted for the erection of these buildings, which are so urgently needed, we are, owing to the indisposition of the Councils to borrow under the terms of the new Act, no nearer securing the accommodation they would provide than we were two years ago, when their erection was first decided on.

Besides one case of erysipelas and another of diphtheria, there were 74 cases of infectious disease. Four patients died from dysenteric diarrhœa, five from typhoid fever, and one from diphtheria.

The amount of leave granted to attendants and nurses has been increased, and Dr. Eager reports that the result is satisfactory.

Surrey.—Plans have been prepared for the enlargement of the infirmary for female patients. The following interesting case is recorded by Dr. Barton:—

One of the recoveries, that of a married woman, aged 39, who was discharged after a period of probation, deserves special mention as being a case of great interest. This patient was admitted in October, 1890, with well-marked symptoms of general paralysis. She suffered from persistent headache, and there was a history of a blow on the head some months previously. The disease was steadily progressive, and as the pain was localized about the right parietal region, which was also the seat of the injury, the case was regarded as an exceptionally good one for operative interference. The consent of the husband having been obtained, Dr. Gayton, in February, trephined the right parietal bone, just behind the coronal suture, and evacuated a quantity of serous fluid. The patient made a good recovery. The result of the operation was decidedly satisfactory. Permanent relief from headache was obtained, the mental symptoms gradually disappeared, and the disease became apparently arrested. The patient left the asylum in July, and when last heard of was going on well, with no return of symptoms.

2. *Pathological Retrospect.*

By EDWIN GOODALL, M.D.Lond., B.S., M.R.C.P., West Riding Asylum, Wakefield.

The following notes may, perhaps, be of service to those engaged in pathological work, including the preparation of museum specimens, in asylums:—

Sections of Fresh Cord.—From time to time attempts have been made to obtain sections from the fresh spinal cord, and, as far as I know, satisfactory sections have not hitherto been secured. The procedure introduced by Bevan Lewis for the fresh brain is not applicable to the cord; the requisite fixation of the medullated nerve-tubes in the white columns cannot thereby be obtained. I find that pyridin has the necessary fixing power. De Souza* and Vassale† have used pyridin as a hardening reagent for brain and cord. The method‡ of use now referred to is, however, quite different. Briefly it is as follows:—Sections are made from the ether-frozen fresh cord, and floated on to water. They must not be allowed to dip at any part beneath the surface, for if they do wrinkling occurs; if water lies over the whole upper surface of the knife-blade they will not sink when floated off. They are taken up from the water as soon as possible with a perforated lifter, and floated on to pure pyridin (Merck) contained in a dish at hand. Here the sections stiffen. When fairly stiff push them beneath the surface of the pyridin. They lie in this 12-24 hours (possibly less time would suffice). I have usually left them 24 hours. Passed thereafter into water, it is observed that the sections keep unwrinkled, though they become again flexible; the elements of the white matter are fixed. Wash thoroughly in water (2-4 hours, changing occasionally), stain, wash again, and pass the sections into weak pyridin (diluted with water), thence into stronger, and thence into pure pyridin. In this the section becomes dehydrated and cleared in a few seconds. Mount in balsam dissolved in pyridin. I have now sections prepared by this method six months old, and they are perfectly preserved. For staining various anilin dyes are suitable. Most are dissolved out pretty quickly by the pyridin, and therefore the sections should be over-stained. Kernschwarz, diluted to one-fourth its original strength, stains in a few minutes. It does not come out in pyridin. It sometimes produces a black ppt. on the specimen in course of time, which is unfortunate, as it is otherwise an excellent stain for these sections. Ten minutes in kernschwarz

* "Zeitschr. f. wiss. Mikroskopie," Bd. v., Heft. i.

† "Rivista Sperimentale di Freniatria," Vol. xvii., Fasc. iv.

‡ A preliminary note of this appeared in the "Med. Chronicle," January, 1893.

may be followed by $\frac{1}{4}$ - $\frac{1}{2}$ hour in picrocarmine, or a day or more in purpurin. Another combination is anilin blue-black ($\frac{1}{4}$ per cent. aqu. sol.), 20 min., and picrocarmine, half-hour. By this method the spinal cord can be removed, cut, and sections stained and mounted within the day. Hitherto my experience has been chiefly with cords of the lower animals, cut within an hour of death; in two cases the human cord has been cut. In each of the latter the autopsy took place 24 hours after death, and in each the elements were seen to have their proper shape, and to be fixed. The nerve-tubes, when this method is used, are found tightly packed together, without the intervening spaces seen in chrome-hardened preparations, and in immense numbers. Between the larger tubes lie collections of small ones; these are obscured if the staining has been overdone. The great difficulty presented by this process is this—when the sections, passed from water into pyridin, have been a few moments in the latter, the cornua become mapped out, in many instances, by minute air-bubbles. These it is often impossible to get rid of by agitation; if allowed to remain any time circular area corresponding to the bubbles in size are left indelibly stamped upon the grey matter. Very frequently, but not always, I have avoided this formation of bubbles by cutting the sections into water which had been thoroughly boiled in a flask, and rapidly cooled before use, the flask being well closed after boiling by india-rubber cork and paraffin. If then air bubbles collected on the cornua they were mostly got rid of by agitating the section in the pyridin. It is to be hoped this difficulty may be thoroughly surmounted, as I believe the process promises to be of practical service.

Museum Preparations. Glycerin-Jelly as a Mounting Medium.—My object here is to draw attention to glycerin-jelly as a mounting medium for healthy or diseased sections and pieces of nerve-tissue in the fresh state, and for portions of diseased cerebral meninges and blood-vessels. The preparations in our collection include pieces and sections (the latter either of microscopic thinness or 1-2 m.m. in thickness) from various cerebral regions, complete brains of rodents (rat, rabbit), sections of the whole brain of cat and rabbit, and various specimens of diseased leptomeninges. Sections of fresh pons, medulla, or cord could probably be equally well preserved. On this point I have no experience, but as the method, after a year's trial, proves satisfactory, it is proposed to try it on a large scale. I believe that most tissues mounted in jelly have been previously hardened. In the museum of the Yorkshire College, Dr. Jacob, of Leeds, recently showed me a number of jelly preparations, amongst which were a few specimens of fresh liver and lung; so that our preparations, if novel, are only so in that they have to do with cerebral structures. Their age varies between six months and one year; the tissues are perfectly preserved. It must, however, be acknowledged that the

blood-tint has in a measure faded.* Quite exceptionally moulds have developed to a slight extent upon the surface of the jelly, but no damage to the specimen itself has resulted; though the moulds gain a footing, it appears that the soil is unfavourable to their further development. In these rare instances the specimens were transferred to fresh jelly, and this has remained sterile. The following is the formula for the jelly: Best French gelatine, 8-10 gram., glycerin 25 c.c., sat. sol. boracic acid 75 c.c. Dissolve the gelatin—cut up—in the boracic solution by heat, add the white of an egg, and apply heat until the albumen has separated out thoroughly; add the glycerin. If the fluids are contained in a flask floating in water, to which the heat is applied, but little loss by evaporation occurs. Filter through a hot-water filter. The jelly should be quite clear. It will have a slight yellow tinge. If this is thought undesirable less gelatin must be employed; the proportion stated above is that employed for gelatin culture-media, which remain solid in this climate throughout the year, and show no shrinkage for a very considerable period. The preparations are put up in glass vessels; Soyka's, Petri's, or Esmarch's dishes are convenient. Pour a little of the melted jelly into the vessel, let it rest, arrange the preparation on its surface, and cover with more jelly. If a fresh section of brain is to be mounted direct from the freezing microtome, it may be floated on to saturated boracic acid solution; the glass vessel, half-filled with set gelatin, is passed into the fluid beneath the section, and the latter arranged with a camel-hair brush on the jelly. The vessel with its section is then withdrawn, excess of fluid allowed to run off, and melted jelly (not too hot) is poured in up to the brim, care being taken to prevent floating of the section. It appears to me best not to seal down the lid of a vessel containing glycerin-jelly preparations; fresh jelly can then be added from time to time as necessary. None has yet been added in the case of our one-year-old preparations, as no appreciable shrinkage has occurred. A very good background to these preparations of fresh brain is obtained by painting the back and sides of the glass vessel employed with black bicycle varnish.

Plaster Casts of Brain.—These may be made as follows: Place the brain in a suitable position in a basin, pour over the surface melted paraffin (hard quality), sufficiently warm to ensure penetration into the sulci; it must not be allowed to approach too closely the setting point; on the other hand, too, great heat must, of course, be avoided. The pouring is done deliberately. Finally the brain is completely hidden by solid paraffin, which also fills in the space between it and the basin-wall. This procedure occupies from four to five minutes. As soon as the paraffin is well set, cut

* Thoma's fluid ("Centralbl. f. Allgem. Pathol.," 1891, p. 401) is said to preserve the blood-tint better than any medium hitherto recommended.

through the portion surrounding the brain down to the bottom of the basin, in a complete ring round the organ. Place the basin and contents into cold water; the paraffin sets hard. Now remove from the water, and turn out the brain, covered by its paraffin cap, using a strong scapel for the purpose. By a little shaking the cap can be separated from the brain; from its inner aspect numerous ridges and processes are seen projecting; these correspond to sulci. By this means a mould of the brain is obtained. Fill this mould with good plaster of Paris, made up to the usual consistence of a cast with water. When the plaster is thoroughly set place the whole in water in a saucepan, and heat. The paraffin melts away, leaving a cast of the brain. The convolutions and sulci are well mapped out; the under surface is quite flat. Any little holes—sometimes such are seen, 1-2 mm. in diameter—may be filled up with plaster. Expose the cast to a gentle heat to dry it. Subsequently it may be painted of the same tint as a Giacomini preparation. Abnormal disposition of gyri, difference in size of hemispheres, local atrophy and depressions, gaping sulci, and other lesions may be represented by this method with accuracy. Good fresh sections may be obtained from brains which have been subjected to this process provided they were not notably softened beforehand.

(To be continued.)

3. German Retrospect.

BY W. W. IRELAND, M.D.

On the Influence of Diseases of the Ear upon the Development and Course of Insanity.

The following is taken from a *resumé* of Dr. Bjeljakow in the "Wjestnik Psych." (viii. Jahrgang, Heft 2), as given in the "Allgemeine Zeitschrift für Psychiatrie" (xviii. Band, 1 Heft). Dr. Bjeljakow, who has studied the subject in a hospital of St. Petersburg, has confined his observations to cases where there was distinct inflammation of the middle ear. Out of 135 post-mortem examinations which he made during four years 17·12 per cent. suffered from internal otitis. Of these one of the patients had melancholia, one paranoia hallucinatoria acuta, eight paranoia hallucinatoria chronica, two secondary dementia, three epileptic insanity, four general paralysis, one acute delirium, one senile dementia, and three hebephrenia. The author, at the end of his paper, gives the following conclusions:—

1. An inflammatory process of the internal ear is frequently the cause of mental derangement, especially of insanity accompanied

by hallucinations. If the local inflammatory process take an unfavourable course the insanity often passes into secondary dementia, which, otherwise, this form of insanity is not so liable to do.

2. One-sided hallucinations of hearing are very frequently the result of a heightened excitability of the cortical centres, the result of the transmission of the irritation from the auditory nerves.

3. Hallucinations of hearing on both sides, which support the hypothesis of the independent function of each hemisphere, may be caused through disease of the auditory apparatus.

4. Irritation of the organ of hearing frequently does not stop at exciting hallucinations of hearing, but as a result of the influence of this sense upon the others, it also excites other hallucinations, especially those of taste, smell, and general sensibility. The character of the delusions of the senses is tinged by the personality of the patient.

5. In many of these patients, who suffered from ear disease, there was found a hyperæsthesia of hearing, which, as a sequel to noises or musical sounds in the ear, becomes changed into a diseased sensation. At the same time the sensibility to hearing outward sounds is not increased, but, for the most part, diminished.

6. The overflow of saliva, which often accompanies suppuration of the middle ear, is caused by irritation of the chord and the nerves of the tympanic plexus. The hypochondriac depression and pain about the præcordium, which from time to time trouble these patients, may be explained through irritation of the nervi vagi of the auricular branch, and the propagation of this irritation to the auditory brain centres.

7. The connection of disease of the ear with insanity accompanied by hallucinations is only observed in cases where mental activity and apprehension are not yet much diminished.

8. Epilepsy seems sometimes to depend upon disease of the labyrinth. The irritation, coming from inflammation of the middle ear, may assume the form of a false general paralysis.

9. Hallucinations of hearing, though rare in general paralysis, may, when they appear, be the result of otitis on one side. In this case the hallucination is generally confined to the same side of the brain.

Unilateral Hallucinations.

Professor Pick, of Prague, records a case ("Neurologisches Centralblatt," No. 11, 1892), which closely resembles one already published by Sir Henry Holland in his "Medical Notes and Reflections." An epileptic had an attack of paresis of the right extremity, and aphasia with lateral homonymous hemiopia. Cutaneous sensibility was much diminished. On recovery from

some disturbance of consciousness it was ascertained that not only was there motor aphasia, but also word deafness. On the third day these symptoms had considerably abated. The patient became restless, struck the bolster, and said that someone from below cried into his ear, "Senat, Senat." The man, whose speech was Bohemian, did not know the meaning of this word. A little after he heard incessantly the word "Prosto, prosto." This also had no meaning to him. In a few hours these hallucinations ceased, but the patient remained unquiet. Nearly two months after this the patient again had a paralytic attack implicating the right arm and right side of the face accompanied with loss of sensibility. He again became affected with sensory and ataxic aphasia with right hemiopia. In three days this disorder of speech had, in a great measure, abated, when there were hallucinations of hearing. He said that there had been a row since the morning, and that a dog had been howling. These visions seemed to come from the right. After three days they passed away along with the remaining traces of the disorder of speech. It is here to be noted that the hallucinations were on the right side, although the paralysis of the limbs indicated disease of the left hemisphere. A month after the patient had an attack in which this succession of symptoms was repeated, but the increasing weakness of the patient prevented the case being carefully studied.

The next case described by Professor Pick was a woman of 58 years of age subject to delusions with intercurrent attacks of epilepsy. She heard voices in the right ear which conveyed threats or remarks about what she did. If the ear was stuffed with wadding only an indistinct murmur was heard; but whenever the wadding was removed the voices returned. No voices were heard in the left ear, in which the sense of hearing was dull. On examination the left auditory meatus was found to be full of hardened wax, and on this being removed the voices were heard in the left ear also.

In this last case described by Dr. Pick auditory hallucinations confined to the left ear were found to cease when the ear was stopped.

On the Theory of Hallucinations.

Dr. Tigges begins a thoughtful paper on this subject in the "Allgemeine Zeitschrift für Psychiatrie" (xlviii. Band, 4 Heft) by observing that the fundamental condition in hallucinations is an increased excitability of the sensory centres in the cortex. These centres are roused by a stimulus which, in ordinary circumstances, is inadequate. Most authors now place the seat of hallucinations in the cortex, but some, as Hagen, Kahlbaum, and Schüle, still place them in the lower cerebral ganglia, a view also upheld by Meynert.

Petersen has described the case of a young man who suffered from delusions of persecution. He heard voices only in the right ear, and had hallucinations of sight, visions of men and skeletons upon the right half of the visual areas of both eyes. These never passed across the vertical line of separation, and when the patient turned his head towards the light the hallucinations followed him. Petersen regards this as undoubtedly a central hallucination caused by lesion of the occipital and temporal lobe, nevertheless it followed the movement of the eyes. Dr. Tigges adds an instance where a voice heard on the left side ceased when the ear was stopped.

He asks the question whether there can be a centrifugal excitement or stimulation where the lesion lies in the cortex? Dr. Tigges cites Jolly's observations, who found, on applying the constant current to the auditory nerve, that in four or five persons subject to hallucinations of hearing there was an increased irritability of the nerve with paradoxical reaction, that is, the opposite ear was affected instead of the ear to which the electric current was applied. Dr. Tigges found a similar result, but only in cases where there was organic affection of hearing.

Insanity following Multiple Neuritis.

Doctors Korsakoff and Serbski (*Gesammelte Abhandlungen*, Moscow, 1890, quoted in the "*Allgemeine Zeitschrift für Psychiatrie*," xlviii. Band, 3 Heft) have described a case of this form of insanity. The patient was a woman twenty-seven years old. She had an extra-uterine pregnancy for which laparotomy was performed, and a putrefying foetus was removed. A week after this operation the mental derangement appeared. There was great excitement, weakness of memory and clouded consciousness, associated with general weakness of the extremity, loss of the patellar reflex, and pain on pressure on the nerve trunks and muscles. There was fever with small pulse. The disease lasted two months and ended with death. The mental derangement showed all the characteristic symptoms which Karsakow had already assigned as symptoms of the polyneuritic psychosis.

On examination after death there was found a widely diffused degenerative neuritis implicating the nerves of the extremities as well as the vagi and phrenic, and, in part, the cranial nerves. There was an alteration in the size and form of the spinal canal which was thought to be congenital and not connected with the insanity. In the columns of Goll the neuroglia was found to be increased, no alteration was noticed in the brain cortex. There was colloid degeneration of the thyroid gland.

This case goes against the view of Tilling, who holds that the polyneuritic psychosis is only found after alcoholic neuritis, whereas Korsakoff has observed it to follow every species of toxic polyneuritis.

Another Case of Psychosis Polyneuritica.

At a meeting of the Psychiatrischer Verein of the Rhine Provinces, held at Bonn ("Allgemeine Zeitschrift für Psychiatrie," xlviii. Band, 1 Heft), Dr. Brie described at length another case of this new form of insanity. He began by observing that some impairment of the intellect, and especially of the memory, had been long noticed in drunkards suffering from multiple neuritis, but it is to Dr. Korsakoff that the merit is due of having directed attention to a type of insanity which is characterized by a peculiar disorder of the memory combined with multiple neuritis, afterwards passing into stormy mental excitation. This has been styled *psychosis polyneuritica* or *cerebro-pathia toxemica psychica*. Korsakoff considered this mental affection is caused by various toxic agents as well as by alcohol. In the case described by Dr. Brie the characteristic mental symptoms appeared without any abuse of alcohol. The patient was a man of thirty-four years of age, free from hereditary disease, and who had previously enjoyed good health. About eight years before he set up a grocer's shop in Bonn. After the death of his wife, who assisted him in his business, he turned hard and suspicious. At the Whitsuntide of 1889 he became ill with persistent vomiting and diarrhoea, by which he was much prostrated. He was troubled with double vision, and in July of the same year his memory began to fail. He soon got so weak in the legs that he could scarcely stand, and on the 7th of October was received into the asylum at Bonn. He was found to have paralysis of the abducens of the right eye with nystagmus; the fundus of the eye was normal. He could not turn himself in bed without great exertion, was quite unable to walk, and very helpless. The legs were kept bent at the knee. The patellar reflex was wanting, and there was pain on pressure over the muscles. There was weakness of the arms on pressure; cutaneous sensibility and excitability to the electric current were found to be diminished. The pulse was 120 in the minute; the appetite very poor. There was much loss of memory. He told silly fables about himself, which varied from day to day. He could not remember what had happened to him a few days before, was surprised on being told where he was, and then forgot it again. He called the physicians and attendants by strange names. Towards the end of October the patient was seized with distressing symptoms which indicated an affection of the vagus and phrenic nerves. He felt faint, was restless in his bed, had a great difficulty in breathing, and had a cyanotic appearance. These symptoms got worse and better till the end of December, when his mental condition improved, his memory began to be stronger, and his judgment more correct. During the six months which had elapsed before Dr. Brie read his papers there had been

considerable improvement in the patient's mental condition. The memory had gained strength, and he described himself as having passed through a dream. But the legs were contracted, he walked with difficulty, and only with the assistance of his hands; sensibility was still deficient; the patellar reflexes had not returned, and there was pain on pressure being applied to the muscles.

Dr. Brie observes that in this case there was no known constitutional disease, nor poisoning with alcohol, lead, or arsenic. He is disposed to think the toxic agent was connected with the continued intestinal disorder.

Peripheral Neuritis in the Course of General Paralysis.

Dr. A. Pick ("Berliner Klinische Wochenschrift," No. 47, 1890) describes the case of a man whose mother was insane, and who was imbecile from birth. At the age of twenty-two years he was visited with the characteristic symptoms of general paralysis, delusions of grandeur, stuttering in his speech, twitching of the tongue and muscles of the face, and sluggish action of the pupils to light. During the course of his illness, after he had become confined to bed, there was paralysis of the peronei muscles which disappeared after several months, and was succeeded by spastic rigidity. Professor Pick regards this as an undoubted peripheral paralysis of the nerves occurring in the course of the general paralysis. After death the usual lesions were found in the membranes, with atrophy of the brain substance, and widening of the lateral ventricles.

Dr. Pick adds another case of the kind in a woman 38 years of age, who suffered from headaches and paralytic attacks which ended in mania with delusions of grandeur. There were characteristic motor disturbances with progressive diminution of intelligence, the ideas of grandeur still persisting. In this case also there was a sudden paralysis of the peronei muscles. Dr. Pick believes this complication also to be the result of peripheral neuritis.

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—QUARTERLY MEETING AT LIVERPOOL.

The Quarterly Meeting of the Medico-Psychological Association of Great Britain and Ireland was held on Thursday, 9th March, 1893, at the Medical Institution, Mount Pleasant, Liverpool. Dr. Baker, of York, President of the Association, occupied the chair, and amongst those present were Drs. Clouston, Hayes Newington, Richards, Bonville Fox, Savage, Conolly Norman, Bullen,

Shuttleworth, Stanley Gill, Hack Tuke, Yellowlees, Campbell, Monld, Ley, Wigglesworth, Bower, Turnbull, Menzies, Urquhart, Fletcher Beach (Hon. General Secretary), etc., etc.

The PRESIDENT—The first business is the election of candidates.

The SECRETARY read the names of the candidates for election as follows:—

Thomas Philips Cowen, M.B., B.S.Lond., Assistant Medical Officer, County Asylum, Prestwich, Manchester.

Arthur Allen Fennings, M.B., B.S.Durh., Junior Assistant Medical Officer, Camberwell House, Camberwell, London, S.E.

Finlay Murchison, M.A., M.B., C.M.Edin., Resident Proprietor, Wyke House, Isleworth, Middlesex.

James William Aitken Murdoch, M.B., C.M.Glasg., Medical Superintendent, Berks County Asylum, Wallingford.

The candidates having been submitted to the ballot,

The PRESIDENT announced that all the candidates had been elected. He then called upon Dr. Wigglesworth to read a paper on "General Paralysis occurring about the Period of Puberty."

Dr. WIGGLESWORTH then read his paper, which will appear in the July number of the Journal.

The PRESIDENT—I now invite discussion upon this very interesting paper.

Dr. CLOUSTON—I express the feeling of everyone present when I say we are very much indebted to Dr. Wigglesworth for his highly instructive and unique paper. It is one of those concrete and well-balanced papers that seem to give us all necessary information, because it is founded on definite clinical facts. As regards the occurrence of general paralysis at this period of life of which Dr. Wigglesworth speaks, I admit I was extremely sceptical of the first case. One's whole ideas of general paralysis were contrary to its occurrence taking place at this early period of life. I, along with Dr. Maudsley had attached very great importance to sexual excess in the causation of general paralysis; and here we had cases where undoubtedly there had been nothing of the kind in any shape or form. Then it seemed extraordinary that every other possible cause of general paralysis was absent in these particular cases. On the whole it had the effect on my mind of almost revolutionizing my ideas of general paralysis. To begin with there were great doubts expressed as to whether they were cases of general paralysis or not; but I think the evidence is so striking, and in Dr. Wigglesworth's paper it is of so conclusive a nature that such cases will not be questioned in the future. Thinking that perhaps Dr. Wigglesworth was going to show microscopic specimens, I brought specimens from two cases with me, one of which died, and the diagnosis was absolutely confirmed by the naked eye and by the microscopic examination of the brain. I have at the present time a fourth case—a patient of 18 years of age, who has been ill from three to five years—and the general characteristics of the case are the same as those I reported before. She is a girl of country parentage, and she is better developed than in the cases yet reported. She is stouter, and her mammae are larger than usual, but she has not menstruated, and the sense of sexual reproductive development is absent, and as she has lived in the country she would probably have been very much more developed had she not become insane. The mental and bodily symptoms are absolutely characteristic. In regard to the common absence of grandiose delusions, I would remark that all my cases have had a peculiar, happy "facility." It was not merely dementia. You may have a demented patient who has not that peculiar, happy sort of facility, and is pleased with everything. This condition is, as we know, more common in general paralysis than even grandiose delusions. With regard to the ages at which general paralysis occurs, I am beginning to be more impressed with the fact, that we may have

it occurring not only at puberty, but that we may have general paralysis between 60 and 70 years of age.

Dr. SAVAGE—My experience of these unusual cases of general paralysis has brought me into contact only with boys. I have not had any experience of a girl suffering in this way. The cases I have seen, as were Dr. Wiglesworth's, have gone into dementia, in one case certainly with "facility," and in three others with marked emotional disorder. In the next place, in one case at all events—and I believe in some others that have hitherto not been recognized—they have been looked upon by general and neuropathic physicians as ordinary cases of neurosis. Those cases seem really deserving to be called cases of general paralysis in which there was progressive degeneration with dementia ending in death, and in which the symptoms were confirmed by post-mortem examination. They were cases characteristic of general paralysis of the insane. There was one other case which struck me, in which there was an alcoholic history, and one in a boy who had been a huge meat eater and whose earlier symptoms were associated with the most violent urticaria I have ever seen, so that he was supposed to be suffering from scarlet fever. I should like to hear the experience of others as to whether they had met with any cases occurring after influenza. I met with some such belonging to a neurotic stock, who had a high temperature, with influenzal symptoms, the result being that within a very short time all the symptoms of progressive paralysis of the insane developed themselves. In another case there was a distinct history of general paralysis occurring in the father; the boy died of progressive dementia, and there was pachymeningitis. My experience agrees with that of Dr. Wiglesworth, that senile neurosis is a factor to be considered, and there are several cases of quite young people in which one has seen evidence of hereditary syphilis, so that I agree with Dr. Wiglesworth that we may have marked cases of youthful general paralysis. I think that when our ideas have become clearer we shall have many more cases than we expected.

Dr. SHUTTLEWORTH—I should like just to refer to three or four cases which the reader of the paper was good enough to bring before us to-day. I may say, as the superintendent of an idiot asylum, that my own knowledge of general paralysis has been comparatively limited. My cases which have been quoted and alluded to by Dr. Wiglesworth were collected, I think, at the request of Dr. Savage, to illustrate a paper which he brought before the Congress in America in reference to the relation of syphilis to insanity. I was able then to find four cases under my care out of some 500 cases in the institution to which I belong. There were the symptoms which I now perfectly recognize as agreeing with those distinguished by Dr. Clouston, and in fact I did so after seeing some of his cases in Edinburgh, and reading a paper on the subject there. Those cases were of a syphilitic history. That is the peculiarity, perhaps, and I do not remember any similar cases, presenting similar symptoms, in which there was no syphilitic history. I do not mean that they themselves always displayed syphilis, but I think the majority of them had certain symptoms—either symptoms which were ascertained from the parents, or were detected by the medical men attending the children in their infancy—which really did point to a syphilitic affection of the children. In all these cases there were some specific skin affections in their infancy, followed by a period of comparative health and intelligence in earlier childhood. They had gone to school, and most of them had passed two or three standards, and then at the age of ten—always at the age of 10, 11, or 12—there was a breakdown, and it was strongly insisted in the majority of cases by the parents that what followed was the consequence of a fall. Well, we can discount this as being partially the case, or the consequence of the condition induced. But one found always when one had further insight into the history of the cases that there had been symptoms showing clearly that there was an inherited syphilis in the child. I got, for instance, a very exact history from the father of one of the children. He was a man of great respectability, as far as I knew. He told me that the child had gone to school, and had

fallen down in a fit and hurt his head, but the medical attendant—a practitioner well known in this city—ascertained that it was a very clear form of syphilitic affection; and not only the father himself, but the majority of the children in the family suffered from it, so that I have no doubt that if one had the same opportunity one would have been able to trace the syphilis in the others in like manner, and that this theory of a fall was merely a symptom. In two cases out of four there were eye affections, and in the other two marked inequality of the pupils, and I got to think that the developmental period had set the thing going, or probably the period of second dentition had occurred. It was hardly the age of puberty when the first symptoms of breaking down showed themselves. I put it down rather to a certain amount of excitement in the period of second dentition. Then there were four cases which, in 1888, I looked up in that way. Three died, and one of them still remains, with unquestionable symptoms of syphilis. But yet she is not going down the hill very fast. She is not improving at all, but she, at any rate, gets no more paralytic, and I do not know how long she is going on in that state. I have had her under my care for six or seven years, and she does not really get rapidly worse. However, there were three cases in which death resulted, but they were taken home by the friends without any opportunity for post-mortem examinations. In the third case we did get a post-mortem examination, but unfortunately I was away at the time, and this is merely the hemisphere which has been preserved (holding up a specimen). That was a boy. He had a head nearly 22 inches in circumference, but this specimen shows pretty well the shrivelled, atrophied condition of the brain. In none of these cases did I witness any symptoms of grandiose feeling or emotional feeling, which are so characteristic in general paralysis. I have now a boy of ten years old, who, without having any paralytic symptoms, certainly has these grandiose symptoms very markedly exhibited. He says to me, "Come here, doctor. What shall I give you at Christmas? I will give you a horse, I will give you a carriage and pair," and all that sort of thing, and I am looking with interest to see what will be the subsequent history of that case.

Dr. CONOLLY NORMAN—It is said, sir, that general paralysis is rare in the country in which I practise, and possibly on that account I have only seen one case which bears upon Dr. Wigglesworth's paper. Somewhat more than three years ago I was consulted about a female child, who was then of the age of 13 years. Some ten months before, her relatives noticed that she was becoming dull in mind. During the course of the case she had several falls and hurt herself, but her relatives distinctly noted that she was dull before the occurrence of these falls. She was the fifth child of her parents. The four previous children were still alive, and they had been always healthy. Subsequently to the patient's birth two pregnancies ended respectively in a still birth and a miscarriage. When I saw the child she was 13 years old, and she presented typical symptoms of general paralysis as far as physical signs are concerned. She was quite unconscious of being ill. She professed always to be very well and happy, and she was quite in the demented and happy condition which Dr. Clouston has referred to. I was very much struck by the child's state, and formed a very positive diagnosis. I could not see my way to come to any other conclusion than that it was a case of general paralysis. I may add that the father of the child died within about a year of paralytic symptoms, which his physician, who had no connection with me whatever, attributed to syphilis, and the mother died of very similar symptoms about a year later. The child has died since, the paralysis having progressed very much, as far as I can learn, in the usual course that general paralysis takes in our experience. I have, unfortunately, had no opportunity of verifying the diagnosis by post-mortem examination.

Mr. RICHARDS—It has struck me that we as specialists have been too apt to restrict the age at which general paralysis can occur in a human being. We have usually understood it to be on the basis of middle age, but I have often thought that it was really a mistake, for if we take the trouble to look more

closely into the matter we shall find such cases as those mentioned by Dr. Wigglesworth, and even in younger children; and there is no doubt, as Dr. Clouston remarked, that we shall find it in more advanced ages, and, indeed, as time progresses we shall find it in any period of life. The time has almost now come when we should take general paralysis out of the domain of psychology and put it more into the regions of neuro-pathology, and this we shall find to be the case as we come to be more intimately acquainted with the form of the disease.

Dr. FLETCHER BEACH—I may just mention that I remember now a case which I formerly looked upon as one of chronic meningitis, but which I now think was a case of general paralysis. It was the case of a boy, aged 16. He had no grandiose symptoms. The case was under observation at a London Hospital—the Hospital for Children—and was also in an asylum for three years. The case had been carefully watched at the London Hospital and the Hospital for Children before it came before me at the Darenth Asylum. I had the history of the case for two years before he came to me, and although he had no grandiose symptoms there was a period of excitability and depression. One does not expect to get grandiose delusions in children. The case progressed from bad to worse, and death took place from exhaustion. We found a very small brain, presenting very similar appearances to the brain shown to-day by Dr. Shuttleworth. The membrane was about one-eighth of an inch thick, extending over the whole convex surface of the brain and passing downwards into the fossæ of the skull. There was also a history of syphilis in that case.

Dr. J. A. CAMPBELL—I only wish to ask Dr. Wigglesworth whether he has had his attention ever called to the case reported by Dr. Donnett Stone, of a boy of 14, who suffered from general paralysis 22 years ago. It is reported in Dr. Braithwaite's Retrospect. I think it is the first case of general paralysis in the young distinctly described.

Dr. WIGGLESWORTH—I am much obliged to Dr. Campbell for calling my attention to this case, which I shall not fail to look up. I have not much to reply to, because there has been a general unanimity of opinion that general paralysis occurs at the early age which I have mentioned. I may just mention in regard to Dr. Shuttleworth's remarks, that his evidence strongly supports the theory of syphilis being a powerful factor in producing juvenile general paralysis.

THE OUT-PATIENT SYSTEM IN CONNECTION WITH ASYLUMS.

Dr. F. ST. JOHN BULLEN read the next paper, entitled "The Out-Patient System in connection with Asylums, and its Further Development." (This paper will appear in the Journal.)

Dr. HACK TUKE—I should like to make this remark, that in a case in which theoretical objections to outdoor treatment are so very considerable, one would like to have some practical results of success, which would show that these objections are not so great in practice as they seem to be in theory. It has always seemed to me that there is one very strong objection, and that is that in so large a number of cases of real mental disease you wish to remove the patient entirely from home and his surroundings, and that you certainly do not do under these circumstances. There are other objections to this mode of treatment, and I repeat that if one could have had any definite fact adduced on the whole favourable to it, I for one should think differently of it to what I am inclined to do at present. Perhaps Dr. Bullen would kindly mention whether at Wakefield the treatment of out-patients has been fairly successful. I think Dr. Bullen's paper a very good one, and feel heartily indebted to him for bringing this important subject forward.

Dr. BULLEN—With regard to the question Dr. Tuke asks as to the practical results, and whether they justify the establishment of the system, I consider that, at the present time, really the system is so much hampered by the mode in which it is carried on that it is very difficult to say aye or no. As at present conducted, I am inclined to think myself that the results are not likely to be

very good. So many of the patients are in very poor circumstances, and so wholly unable to get away from those conditions that perhaps caused their insanity, that it is not very likely any ordinary system of treatment can be beneficial. (Hear, hear.) The scheme ought to be very much modified, but how this modification is to be brought about I really cannot say. The results up to the present time have been good, considering all things. We have had 16 cases out of 116 in which the condition has been alleviated, and 12 in which recovery has occurred, and some are under treatment now. The percentage of those who have recovered is, however, it must be admitted, very small.

MR. RICHARDS—As most of the large lunatic asylums are in close proximity to some of the large towns, of course the difficulty Dr. Bullen has put forward now, that the patients have to come such long distances, is reduced to a nullity almost. Then I should like to ask if the patients who come to the asylum—which, I presume, would be the proper place, if it is one that is near some large town—f, when the patients go there, do the medical officers there prescribe for them, because I presume they would be mostly poor persons, requiring drugs without any expense; and I should like to know how he would get over the difficulty in county asylums of supplying drugs outside. For you must be well aware that when the account came to be reported by the Auditor of the Local Government Board, and it came to his knowledge that drugs were supplied to those outside, there would be a great outcry; and perhaps the doctor would tell us how he would get over the difficulty.

A MEMBER—Having been for many years in general practice, and having been at Morningside Asylum, and then for several years the Assistant Physician in another asylum, I have had some experience in insanity cases before I went into general practice, and therefore any patient that came under my care came into the hands of one not totally ignorant of the subject. I am sorry to say that my experience of the treatment of patients at home has been very unfavourable. (Hear, hear.)

DR. STANLEY GILL—It seems to me that the only benefit from this treatment would be so far as medical students are concerned. The great difficulty in treating out-patients at asylums is the great distances they are from large towns. I cannot see how you could expect the patients mostly affected to go a long distance to be treated outside an asylum, which treatment could not really be beneficial unless they had a class of students sufficiently large to warrant the patients being brought that distance. A few years ago I wrote a paper on this question, upon the examination of lunatics, and I certainly did advocate that more use might be made of the out-patient department of the infirmary. The hospital, and even the Union infirmary, were places where those cases could be seen, and classes could be held for medical students, instead of taking the medical students such long distances as they probably have to go to visit the various asylums. Besides, people object to take their friends to an asylum, and the patients object also.

DR. SAVAGE—This question has been considered by a London Hospital, as to whether they shall establish an out-patient department for mental disorders. My own opinion is that the advantage is very limited. (Hear, hear.) In connection with Queen's Square Hospital, or any Hospital for Nervous Diseases and Paralysis, it seems to me that it would be well to have consulting physicians, and it would not be a bad idea if at the Queen's Square Hospital once or twice a week an alienist physician attended to see any cases referred to him by the general neurologists. My experience of hospital life has been this, that I used to encourage as much as possible patients to come as out-patients. There were very few who came, however, and this confirms one in the idea that the patients who do come are not those who can be greatly benefited. We know there is one class of patients who are always sure to come, namely, the brain hypochondriacs. (Laughter.) This individual has already worn out the patience of nearly every doctor who has seen him, and he will not fail to come and worry the medical man in attendance at the hospital. Besides that, there is the general paralytic, who believes there

is nothing wrong with him, and he is quite willing to go there as well. But as for treating patients on the out-door system, I think that except from the general medical students' point of view, or from the point of view of diagnosis, this system is rather over-done. One is inclined to think that if the doctor, instead of writing a prescription for white mixture or black mixture, or quinine, or the like, if he could only put his finger upon a beef steak, or some port wine, or a mutton chop, he would cure his patients much more readily than by the ordinary medical prescriptions. (Laughter.) The great advantage, if there be one, in the outdoor system would be that patients would be sooner under definite care and treatment than they are at present; but as for the treatment, I do not think much of what would follow. Supplementing what I have said in regard to the Queen's Square Hospital, it has often struck me as strange that they should not have an alienist physician, because they are not particularly expensive. (Laughter.) We know they have a larynologist, and if they acknowledge the principle in one direction I do not see why they should not have an alienist physician, with very great advantage to the institution.

Mr. MOULD—The hospital movement for many years has done a good deal of out-patient work under this system. I have three or four cases in Manchester. Many of the patients are of the poorer class of life, and they are often sent to me by general practitioners in order that I may suggest a place for them to go to elsewhere than their own homes; and I am glad to say that it is not an uncommon thing for a Lancashire manufacturer, if you prescribe that these patients should go to the seaside for a few weeks, to bear the expense of their removal and maintenance there. I consider this is a very good way of treating patients. I often send cases to a nurse at the seaside who understands them, and patients not very seriously affected do very well indeed. I have at least 30 such cases under my supervision. They are from young medical men, or medical men in the neighbourhood in which they go to reside, and I do think that the plan might be followed out much more than it is, as many a patient might be saved from going into an asylum if he were treated in that way. As we know, in the higher class of life they never think of sending patients to an asylum at all, but they carry out this non-asylum treatment which I have indicated, or which I have had on the brain for the last ten years. (Laughter.) It is very often against the law, but I am glad to say it has resulted in marked benefit to my patients, and in some little credit to myself. (Renewed laughter.) I would emphasize the encouragements to patients to come to you. They will not come to the asylums. Every physician should have—and Dr. Clouston has—rooms in the town nearest to which they reside, where such patients could come without such feelings of discomfort that they would have if they had to go to an asylum. We do not tread for one moment on the general practitioner's practice, but adopt the means and management to carry out a course of treatment that is essential to the benefit of such patients, and which, as a rule, can only be carried on outside an asylum. You only have to run a certain amount of risk (laughter); but I think every man ought to face risk for the benefit of humanity. I feel it would not put me about at all to do it, and I should try again. Although I do not say with Dr. Bullen that it can be carried out in county asylums, I am quite sure it can be carried out in hospitals.

Dr. CLOUSTON—The physicians of the Edinburgh Royal Infirmary are in the constant habit of sending me out-patients. They want some advice as to their mental condition, and I am bound to say that in many cases there is a very great benefit to be derived from giving such advice. We may do these patients a very great deal of service in that way. Of course, there are inevitable risks in certain cases that we must be prepared to take. With regard to giving advice at dispensaries, my friend Dr. Batty Tuke is connected with one of the dispensaries in Edinburgh, and he goes there once a week, and gives advice as to the mental cases that come to him. The practice must be successful, because I think he still continues it after the experience of a great many years. It is quite true what Mr. Mould says, that there is no essential difference between the treatment of the rich patients and the poor patients. If the rich come to us, we pre-

scribe for them. Why should we refuse the poor? There are very few cases so poor but what they have some amount of money to get for themselves a few days' or weeks' change by going to the seaside. I am in the habit of laying it down to my students that we are bound to cure a patient, poor or rich, out of an asylum if we can; and I think poor or rich should have a right to such advice as is suitable to their condition outside an asylum before an asylum is tried. I agree that patients often do not like to go to asylums, and there is no doubt that we ought to organize it, so that the asylum physician and his assistants should go to the dispensary and there give advice; and if that could be done a great deal of service would accrue. This subject ought to have been discussed by us long ago, and we are very much obliged to Dr. Bullen for having brought it forward. (Applause.)

Dr. URQUHART—I concur with Mr. Mould and Dr. Clouston in what they have said, for I think it is our duty as physicians to treat every possible case, whether rich or poor. In this experiment it really comes to be a question of money, and surely we can educate the public, and educate the County Councils into spending money in keeping people out of asylums, and, if possible, curing them outside the asylums. I have very much pleasure in supporting the views expressed by Dr. Bullen.

The PRESIDENT—We are nearly all of us in practice, and have seen that almost daily the people who come to consult us come regularly, and are not likely to go to an asylum. The difficulty seems to be at most a financial one. The poor do not like to come and take up our time and not be able to give us a money fee. Of course most of us try to do some charitable work, but the amount we do in that direction is limited.

Mr. MOULD—It is a very common thing for medical practitioners to send poor patients to consult me with the view that I might give my advice as to whether a course of treatment might be carried out. I have rarely found an employer or a tradesman or a friend of a patient appealed to unsuccessfully by a doctor to pay the expenses of granting to the patient a few weeks' rest and change, which often stays the more moderate cases of bodily and mental mischief, and effects an entire cure.

Dr. CONOLLY NORMAN—I am one of those who had heard about the experiments of the West Riding Asylum with reference to the out-treatment of patients, and I was very much interested to hear whether they had succeeded. I think it would be a very great pity if we let our poorer people think that there was no way of treating them except by sending them to the asylum, because if you do not give them some opportunity of out-treatment that is what it means. From my experience, I should like to see an out-patient department in connection with every large public asylum, for my experience, as far as it goes, does not coincide with that of Dr. Savage. A week scarcely passes that someone belonging to the class from which my asylum is recruited does not come to consult me about mental symptoms. I have no opportunities of seeing patients of the class I refer to except at the asylum, and they come there for advice with remarkable freedom. I admit that I have had wonderful luck, for I have never had a hypochondriac visit me voluntarily yet. (Laughter.)

Dr. MOULD—I did not quite catch what you said just now.

Dr. CONOLLY NORMAN—I say that perhaps hypochondriacs may be rare in the class among whom I practice (laughter), and that I have never had one come to me voluntarily yet. When I heard Dr. Savage just now I ran over in my own mind the cases which I could recollect. There are five of melancholia, two of epileptic insanity, two of *folie du doute*, and I believe one of tormenting hallucinations. It would, I think, be a very good thing to introduce the out-patient treatment, even if not very largely successful, because it would bring us better into line with other medical specialists and associate us more closely with general medical work and less exclusively with the official and routine life of asylums. (Hear, hear.)

Dr. YELLOWLEES said he admitted that the question was one of very great importance. Of course, it is true that what we do for the one class of

patients we ought to do for the other class. The difficulty very often is a financial one. You feel how futile it is to give advice which you know cannot be fully carried out. We know that manufacturers and employers are ready at all times to put their hands in their pockets and do the liberal thing in this county of Lancashire. (Laughter.) I agree with Dr. Savage that the right place to treat patients of the poorer class for mental conditions would be in the out-patient department of a general hospital. That would have two great advantages. It would lessen the sense of reluctance which the patients have to come to the asylum at all, not to speak of the inconvenience of coming so far, and it would bring the asylum physician into much closer contact than he is at present with the staff of the hospital and with the practice of general medicine. (Hear, hear.) I know that many of us are often asked by the physicians of general hospitals to see patients in this or that ward who have developed mental symptoms; I think the same thing should be practised in the out-patient department, and there ought to be an asylum physician in attendance on stated days ready to give counsel in such cases. That, I think, would be the best thing for the patients, certainly it would be the best thing for us as asylum physicians, and probably the best thing for the other physicians also. This system was one of the alternatives which the reader of the paper very properly suggested, and in my opinion it is a wise and a right one.

Dr. BULLEN—Allow me to express my thanks for the kind consideration which this paper has received. It was only read for the purpose of provoking discussion, and not because I posed as an advocate of the system. It is very satisfactory to me to find that so many good and valuable opinions have been expressed. There is only one question which, I think, I have to reply to, and that is Mr. Richards' remark with regard to the supplying of drugs at Wakefield. I may say we supply drugs to the patients at cost price.

The PRESIDENT—I have to announce that Dr. Goodall is unable to give his lantern demonstration on subjects connected with insanity, which is the next item on the agenda. We will, therefore, pass on to Dr. Mackenzie's paper.

DISEASES OF THE CELTIC HIGHLANDER.

Dr. J. CUMMING MACKENZIE was down to read "Notes on General Paralysis, Alcoholic Insanity, and Allied Neuroses in the Celtic Highlander." He said:—Rather than read you my paper, which is scarcely yet ripe for publication, I will briefly indicate to you types of psychoses in the Celtic Highlander as they appeared to me on assuming duty in the Inverness District Asylum about three months ago. I was struck very much with the number of patients who laboured from impaired locomotion. Rows of them sat fixedly round the day-room just as we may see rows of advanced paralytics in some of your Saxon asylums. Much of this wreckage has an alcoholic history, which is undoubtedly responsible, as far as I have been able to ascertain, for some of it. The diminution and decadence of muscular vigour, the lustreless eye, the hazy lens, and restricted vision, are some of the features that strike one. The remarkable number with grey hair—the exception is to see an alcoholic without grey hair—and the number that are of untidy habits were also conspicuous features in the institution. Suicidal or homicidal impulse in the Celtic chronic alcoholic is the exception rather than the rule; certainly in many cases a drunken Highlander is a fighting one, and his every intoxication may demonstrate the *mania a potu*. He is not a soaker, however, and, therefore, he cannot boast of that immunity which is the impress of probably a higher civilization. In the Celtic woman drunkenness and tipping are a reproach and very exceptional. In the population of Inverness District Asylum only two females smoke. In the chronic alcoholic when the alcohol is withdrawn the decadence stops, but when the damage is done there is no recovery. Dr. B. Lewis observes that excitement predominates as the type in cases with an insane heredity, the proportion still increasing in cases of ancestral intemperance, a form of history that you might not be unprepared to find in the Celt.

The type of psychosis in him, however, is depression, a type also perhaps proportionately more frequent in the female and thus conforming to the usual rule, *General paralysis*.—In the Inverness District Asylum the admission of a case is a rare event, says Dr. Clouston, while Drs. Blandford and Savage favour the view that the Highlander at home in his native glen enjoys an immunity from paralysis that forsakes him when he goes abroad. What is the explanation? In the Highlands of Scotland general paralysis is hardly ever seen, says Maudsley, "where," he observes, "there is no deficiency either of women or whisky." There are strong indications, says Mickle, that the Celt is less liable to general paralysis than the Saxon. In fact, the North of Scotland, where the Celtic element predominates, appears to be comparatively free from general paralysis. "Dementia," he adds, "is the marked groundwork of general paralysis." He believes that three-fourths or more of general paralytics have hallucinations or illusions of one or more of the special senses at one time or other, and half of them marked hallucinations or illusions, or perversions of internal or common sensibility. The Celtic insane could easily fit in here, for the insanity of the imaginative and romantic Highlander is one of delusions. Ours is an extraordinary institution for delusions, for nearly all the cases have delusions. General paralysis in the female is generally believed to run a longer and more protracted course. General paralysis in the Celt at home is also protracted, and probably for the same reason may be relegated to a chronic group. Protracted cases are not unusual. They are recorded by Savage, Clouston, Mickle, and others, and it would appear as if the chronic protracted group enlarged with our knowledge of the disease. Psychic signs, from all I can gather, are the first to appear. It would not be always accurate, however, to diagnose general paralysis in the Highlander from psychic signs alone. The dawn of somatic signs is often so insidious that it is apt to be overlooked. In this asylum senility and chronic alcoholic dementia are the conditions most likely to be confounded with general paralysis. I have here an example of alcoholic polyneuritis, spastic paraplegia, and tabic general paralysis in females, and notes of a male case with post-mortem record, and several alcoholic types, but I think that perhaps you would rather not hear me just now upon them.

The PRESIDENT invited discussion.

Dr. HACK TUKE—Will Dr. Mackenzie tell us the proportion of paralytics?

Dr. MACKENZIE—I have just taken types of these various neuroses. I have one case that died in a few days and I have also the post-mortem record. I should think I have got two female paralytics, probably more. As for males, I would not like to say. I have not counted the number. But I have one with a syphilitic history, and I have got three or four, I should think, with a very strong alcoholic history. But as to proportion, I am not prepared to say. My object is more to show that the Celt can acquire general paralysis, or something very closely allied to it, without going very far abroad.

Dr. YELLOWLEES—What number of patients have you in the asylum?

Dr. MACKENZIE—The usual number is 500 or 520.

Dr. YELLOWLEES—Have you half-a-dozen general paralytics altogether?

Dr. MACKENZIE—I should think there are about half-a-dozen. There are records of people who have died undoubtedly of general paralysis. In reference to the remark of Dr. Savage as to general paralysis following influenza, I note a case at the present moment where this has exactly occurred. It was a case of general paralysis. The man nearly ruined himself by signing cheques and by other ridiculous conduct. That was immediately following an attack of influenza. He got a little better and was discharged. But he is going bad again.

Dr. CLOUSTON—It seems quite clear that the lower we go in civilization the less liability there is to general paralysis, because it is extremely infrequent in the negro and unknown amongst the still lower races. At the same time, I do not say for a moment that the infrequency of general paralysis among the High-

landers and the Irish is owing to their having a low type of brain. It is owing, perhaps, to the quiet lives they lead. They probably obey the laws of nature in their lives more than the operatives of Lancashire towns, or than the miners of Durham or of Glamorganshire. I am surprised to hear that the Inverness Asylum now boasts of six general paralytics. There used to be only one or none at all. It is certainly a strange fact that the Celt, in his native country, is free from this disease. It seems as though he may have drunk whisky, but that whisky, on account of its being good, had not affected his brain in the way alcoholic liquors very frequently do. As regards the general type of insanity among the Celts, we do see a certain difference between the type of mental disease in the Celt and in the Saxon. It would take rather too long to analyze it. But there is no doubt about this, that, on the whole, they are much more decorative. There is no question that when the Celt becomes insane he has a strong craving for colour. The Celt is anxious to put on all sorts of gaudy things. The Celt insane is a much more demonstrative lunatic than the Saxon. He is not nearly so dangerous, but he makes twice or thrice as much noise, and his wife makes still more. (Laughter.) That is accounted for by excessive excitability, just as there is ten times as much noise in the female wards as there is in the males.

Dr. COX—Mr. President, I have listened with very great interest to the paper read by Dr. Mackenzie and to the remarks made by Dr. Clonston. It has occurred to me that, with regard to the Welsh nation, in whom I am considerably interested, there are exceedingly few general paralytics admitted to the asylum in which I am engaged—that is, the North Wales Asylum at Denbigh. We have now not more than three or four general paralytics in a population of about 550, in round numbers, and it has occurred to me as a very odd circumstance that we do not receive more of them. I have been listening to Dr. Clonston's remarks with regard to the peculiar temperament of the insane class of patients in Scotch asylums. It occurs to me that they very much correspond in many features with the Welsh temperament. They are excitable and noisy. But I am not able to give you any positive reason why the general paralytics are so few in number.

Dr. YELLOWLEES—In reference to what has been said about the character of the patients in the Welsh asylums, I may say that in Glamorganshire—in the asylum for that part of South Wales—the proportion of general paralytics is extremely large. It is second only to Durham, and perhaps is explained by the fact that the mining and dock population of Glamorganshire is entirely different from the agricultural population round Denbigh.

Dr. CONOLLY NORMAN—I must say that I think, sir, the difference in occupation among populations in different parts of the country has a great deal more to do with the prevalence of general paralysis than any racial distinction. I was an assistant in the asylum in Monaghan for about seven years. My chief was a man who had been trained in Hanwell, so that he was not likely to mistake a case of general paralysis. We had a population of 450, and the largest number of general paralytics we had in the asylum at that time was five. Occasionally we sank as low as one. The population in that district was chiefly Celtic blood and so forth. But it was quite a rural population, with few manufactures or anything of that kind. There was little industry in the district. Some years later, after I had studied general paralysis for some months at Bethlem Hospital, I became superintendent at the asylum for the county of Mayo, and during the time I was there, which extended over three years, there was only one general paralytic. The great majority of the population was Celtic, but they were mountaineers, and entirely agricultural and pastoral in their habits. There were no towns, scarcely even villages. In the asylum where I am now, belonging to the metropolitan district of Ireland, we have just as many general paralytics as there are anywhere else. The great bulk of my people are Celtic—that is to say, out of 1,500 patients fully 1,300 are Celtic by blood.

Dr. MACKENZIE—I am quite aware that the diagnosis of general paralysis is a very difficult question. Even Dr. Clonston says that sometimes the difference between general paralysis and alcoholic insanity is only cleared up by time. And there are various forms of psychoses that are very difficult to diagnose. But if the ordinary idea of general paralysis is to be accepted in connection with the mental symptoms, then these cases are certainly paralytics in the Celt. As to the general type of psychoses in Inverness, it is distinctly depression. Let the Highlander be as decorative as Dr. Clouston says he is, there is still a certain amount of gloom about him, after all, and even the most lively of my Celtic patients suffer from an element of depression.

The PRESIDENT—Before we separate I beg to propose that the best thanks of this Association be tendered to the President and Committee of the Liverpool Medical Institution for their kindness in allowing us the use of this hall for our meeting.

Dr. YELLOWLEES seconded the resolution, which was carried with applause, and the proceedings of the Conference terminated.

In the evening the members and several visitors, including the Mayor of Liverpool, Mr. Snape, M.P., Mr. Barrett, Chairman of the Rainhill Asylum Committee, and the Rev. J. M. Lund, dined together at the Adelphi Hotel.

IRISH QUARTERLY MEETING.

An Irish meeting of the Medico-Psychological Association of Great Britain and Ireland was held at the Mullingar District Asylum on October 27, 1892. There were present: Drs. Garner (Clonmel), Woods (Cork), Patton (Farnham House), Petit (Sligo), O'Neill (Limerick), West (Omagh), J. Nelson Eustace (Highfield), Nolan (Richmond, Dublin), Nash (Richmond, Dublin), Finnegan (Mullingar), Gordon (Mullingar), and Conolly Norman, Hon. Sec.; also, as a guest of the Association, Dr. Middleton, of Mullingar.

Dr. Garner having been moved to the chair, the minutes of the preceding Irish meeting were read, confirmed, and signed.

The following gentlemen were elected members of the Association:—

Dr. George W. Hatchell, Medical Superintendent, District Asylum, Castlebar.

Dr. George Robert Lawless, Assistant Medical Officer, District Asylum, Sligo.

Dr. Vincent J. Rutledge, Assistant Medical Officer, District Asylum, Londonderry.

Dr. L. T. Griffin, Medical Superintendent, District Asylum, Killarney.

Dr. William C. Sullivan, Clinical Assistant, Richmond Asylum, Dublin.

Dr. J. O'C. Donelan, Clinical Assistant, Richmond Asylum, Dublin.

Dr. P. J. Ward, Assistant Medical Officer, District Asylum, Ballinasloe.

Dr. Francis O'Mara, Assistant Medical Officer, District Asylum, Limerick.

Dr. Geo. W. O'Flaherty, Assistant Medical Officer, District Asylum, Downpatrick.

Dr. Joseph Hatchell, Medical Superintendent, District Asylum, Castlebar; and

Dr. W. H. Middleton, Visiting Physician, District Asylum, Mullingar.

The SECRETARY mentioned that the Association now numbered twelve more members in Ireland than in the beginning of the year. One member had resigned, a member had come from England to Ireland, and twelve members had joined the Association. Before the business on the notice paper was taken up, he understood Dr. Woods had a communication of urgency to lay before the meeting.

The consent of the meeting having been given,

Dr. OSCAR WOODS said that, without having any direct resolution to move, and while he was not prepared to inaugurate a discussion, he spoke because he had a strong feeling that the present occasion, the first on which a quarterly

meeting had been held in an Irish provincial asylum, was a suitable one for the assembled asylum officers to take into consideration and discuss matters affecting themselves and their own interests. He thought that the Irish superintendents hardly made themselves sufficiently heard in such matters, and seldom attempted to take that collective action which might be of service. Dr. Woods referred to the unsatisfactory state of the law as to pensions for the servants and officers of asylums, whereby pension was still left entirely uncertain. He said that in view of the fact that a Local Government Bill of some kind was certain soon to be adopted for Ireland, and that such a Bill would no doubt contain provisions dealing with asylums and asylum staffs, he was strongly of opinion that the Association should consider how the interests of its members might be affected. He did not know whether it would be premature just now to enter into any discussion of details.

The CHAIRMAN said that in his opinion the time had scarcely come for discussing the subjects referred to in the latter portion of Dr. Woods' remarks, but he was anxious to hear the feeling of other members on this point. He quite thought that when the time came the Association should make itself heard.

Dr. O'NEILL expressed his approval of Dr. Woods' views, and thought that the meeting should discuss the question at large, with the object of endeavouring to prevent such mistakes as had been made in some recent Lunacy Acts.

Dr. EUSTACE deprecated any public discussion of a Bill, the existence of which they only knew by inference. He thought they should appoint a Vigilance Committee to look into the matter, and to watch clause after clause any Bill proposed in the next session of Parliament that might in any way affect their interests.

The SECRETARY said that he was glad the question had arisen. He had long felt that the machinery for dealing with Irish affairs was defective. The quarterly meetings of the Council of the Association were too far apart and the difficulty of Irish members attending was too great to render them of much service to us. The work that was to be done in this way had hitherto virtually fallen upon the Secretary. Personally, the speaker desired aid; and, besides, he did not consider it a healthy thing for the Association that such work should be left altogether to one man. He thought it would be serviceable if it were an instruction to the Secretary from time to time to communicate with members residing in Ireland on subjects of general interest, and having ascertained their views to transmit an abstract of all to each member, with a view to facilitate early and collective action. A more practicable course, perhaps, would be the appointment of a small committee, whose function it would be to direct and instruct the Secretary from time to time as to the action to be taken in matters such as those referred to.

The CHAIRMAN said—I understand that our Secretary has made a definite proposal that a committee be appointed from among the Irish members to confer with the Secretary and look after the Irish interests and affairs of the Association. Is the proposal seconded?

Dr. FINNEGAN seconded the motion.

Dr. NOLAN inquired whether such a committee would deal with the interests of the assistant medical officers?

The CHAIRMAN—Decidedly, sir; it is not our intention that they should be neglected.

The SECRETARY said that questions generally affecting the officers of asylums would be dealt with by this committee. It would be always open to assistant medical officers individually to bring under the notice of such committee any points they might wish to be dealt with. He hoped all the members would understand that he would always be anxious to receive suggestions for the common good from any member of the Association, whether belonging to this committee or not.

The proposal was then put to the meeting as a resolution, and unanimously adopted.

After some further discussion the following gentlemen were elected members

of the committee: Drs. Garner, Woods, Finnegan, Graham, O'Neill, Nolan, and Gordon.

Dr. WOODS then introduced a discussion on the training of attendants in the Irish asylums. He pointed out the importance of the subject, advocated systematic teaching by lecture and otherwise, and regretted the fact that so little had been done in the way of training attendants in this country.

The CHAIRMAN pointed out that the very unsatisfactory disciplinary regulations as to the appointment, etc., of attendants in many asylums would tie the hands of superintendents.

Dr. FINNEGAN referred to various other difficulties, the small pay of Irish attendants, the probability that a certified Irish attendant would immediately try and better himself by going to England or Scotland, the smallness of the medical staff in most Irish asylums, and the great amount of work already cast on them which would render teaching very difficult, etc. [Nevertheless, it appears that Dr. Finnegan, with his usual energy, has already inaugurated classes for his attendants, has placed the Association Handbook in their hands, and is preparing them for examination.]

Dr. EUSTACE and others having spoken,

The SECRETARY mentioned that a Committee of the Association was at present at work revising the Handbook for Attendants, which was now out of print. When the new edition is issued, it is hoped that all superintendents will introduce it to their staffs.

Dr. FINNEGAN read a paper on "Systematic Dress Fitting for the Female Inmates of Asylums." (See Original Articles).

The CHAIRMAN spoke of the value of Dr. Finnegan's excellent and practical paper. He elicited from Dr. Finnegan a number of interesting details as to the various processes necessary in the work of "scientific dressmaking." The latter stated that he had at present no less than eleven dressmakers, taught in the institution, all competent to cut out at least ten dresses in a day. Several girls who had been admitted as patients, without any trade, had learned dressmaking in the asylum. In one instance a patient was able, on discharge, to take charge of the dressmaking department of a large business house.

Dr. PETIT having visited the female wards of the asylum, was struck by the excellent appearance of the patients in their well-fitted dresses. To this condition of things, and the employment it afforded, he attributed the remarkable appearance of happiness and contentment observable in the wards.

Dr. CONOLLY NORMAN regretted that Dr. Drapes, of Enniscorthy Asylum, who had also adopted this system, was unavoidably prevented from being present on this occasion. The speaker, like many other superintendents, was indebted to Dr. Finnegan not only for introducing the system to his notice, but also for most kindly lending him a nurse skilled in the work to start it at the Dublin Asylum. Dr. Finnegan might take as his motto the words of the great Norwich physician, "It is an honourable object to see the reasons of other men wear our liveries, and their borrowed understandings do homage unto the bounty of ours." It was a sign of the times that such a subject was brought forward at one of our meetings, for hitherto the distinguishing note of our asylum costumes in this country had been their utter tastelessness. They looked as if they were designed to make the patients hateful to themselves and others. The hideous friezes, corduroys, and Scotch caps of the men were more than matched by the squalid druggets of the women. The speaker was in a position to say that a very few years ago certain wearing materials long obsolete, and not endurable elsewhere, were still manufactured in England for the sole purpose of consumption in Irish asylums.

The CHAIRMAN introduced a discussion on the heating of asylums.

As a superintendent of many years' experience, Dr. GARNER was disposed to think that modern opinions had perhaps drifted a little too far in the direction of the more artificial modes of heating, particularly as to bedrooms. He was inclined to think that the heating of bedrooms by hot water increased the mortality of patients, and to this cause he was disposed to attribute the high

mortality in many modern English asylums constructed on principles now in vogue. Sudden and great alterations of temperature would always occur from time to time in bedrooms heated by hot water, and were, no doubt, followed by disastrous effects. Persons in fair general health also did not seem to him to need to have their bedrooms heated, and to do so only made them unduly susceptible to cold.

Dr. FINNEGAN expressed concurrence with the Chairman, and said that his experience of heating corridor day rooms with hot water pipes at the Castlebar Asylum had not been favourable. At the same time he thought that if an asylum was damp, as the Castlebar Asylum was exceedingly, other heating than by fire places may be necessary to secure dryness of the walls. Again, in asylums where ventilation is imperfect, heating apparatuses are very undesirable. In one asylum in a neighbouring country, where the hot-water system of heating was employed, the mortality at one time ran up to such enormous proportions as to cause serious alarm. On inquiry, it was found that the ventilation was in the highest degree imperfect. When this was rectified the death-rate rapidly went down.

The CHAIRMAN—It is almost impossible to ventilate the rooms properly where the hot-water system of heating is used. There is a new system of heating, which I think would be a commendable one for superintendents (Blackman's). The method consists in forcing a current of air, heated by a large furnace, through pipes, in which an apparatus revolves, which carries the air through the pipes. Ventilation is combined with heating. I have seen one of these working during the past week; it was used for the purpose of drying in a laundry, and it appeared to me to be an admirable arrangement for the heating as well. It was rather expensive, and it required about a ton of coke weekly. I am somewhat surprised to hear it said that the mere heating of wards predisposed to an increase in the mortality. I think the increase in the mortality is not due to the heating of the wards, but to allowing the temperature of the rooms to fall from time to time. I think we ought to have the day-rooms of our asylums far warmer at the present time. In mid-winter there should be a temperature of 60°, provided there is plenty of ventilation.

Dr. WOODS disapproved of the hot-water system, and recommended the vane process, where a current of air was made to pass over heated pipes by means of a revolving fan.

Dr. CONOLLY NORMAN said, in considering the heating of a place, a great deal depended upon the construction of the building. He thought sufficient attention had not been paid in the past to the building material of which our asylums were constructed. Many of our institutions were built with a strongly hygrometric limestone, which required a great amount of heat on account of its moisture-condensing properties. He thought the better course would be to have the asylums built with such material as brick, or to have the walls brick-lined. Regarding the second question—ventilation—it was acknowledged that an important factor in the production of phthisis was the breathing of impure air. But he was of opinion that healthy patients required very little heating in their bedrooms, that is provided the walls be dry. At the same time, the single rooms for the sick required a better system of heating than was prevalent in this country, and he thought that dry warm air was better than the hot-water process.

Dr. WEST read a paper describing a "New Farm at the Omagh Asylum." (See Original Articles.)

The CHAIRMAN, while approving of the extension of asylum farms, thought that much more ought to be done in the way of making patients work at trades. Because a man did not know a trade on coming into an asylum there was no reason that he should not learn at least the simpler varieties of mechanical work. The speaker taught his tailor and shoemaker and other workmen that it was the most important part of their business to pick out helpers from among the patients, and to teach them to be useful in the shops.

Dr. CONOLLY NORMAN said that Dr. West's paper marked, if it did not make, an epoch. The old prejudice against the insane, the notion that they ought to be locked up like dangerous wild beasts, must have been the real basis for the very singular opposition that had till recently been offered by asylum authorities to the acquisition of sufficient land either to give the patients breathing space or employment. In no district in Ireland were the bulk of the male patients accustomed before admission to anything except agricultural labour, and yet, as has been often remarked, in no country were asylum farms so small in recent years. A strange spectacle of how hard these cruel prejudices die had been afforded to the public when an entire Board of Governors of an important Irish county asylum had resigned *en masse* in consequence of a dispute with the Board of Control of Lunatic Asylums over the acquisition of land. This cataclysm or storm in a tea-cup had occurred because in an agricultural country some 27 acres had been added to an asylum property which originally consisted of less than 30 acres! The speaker hoped that Dr. West's paper might be taken as showing that better feelings and more enlightened views were already beginning to prevail. In connection with the question of the employment of patients at farm labour, there was, Dr. Norman said, a matter to which he wished to draw the special attention of the meeting, as it affected their kind host. Dr. Finnegan had been in the habit for some years back of sending out gangs of his male patients to work on farms belonging to farmers in the neighbourhood of the asylum. The advantages to be expected from so progressive a step were, the speaker thought, enormous. Dr. Finnegan was, he believed, the first to adopt this plan in Ireland, but he thought Dr. Bucknill had done something of the kind years ago in Devon. Dr. Norman quoted passages from the life of the late Dr. Snell, of Hildesheim, showing that that distinguished physician almost thirty years ago (1863) was in the habit of sending out gangs of 20-24 male patients to work for farmers close to Hildesheim. Dr. Snell has recorded that "the interest in the work itself, the pleasant change of occupation and surroundings, and the enjoyment of fresh air operated together most beneficially towards the improvement of the patients' bodily strength and the calming and curing of their minds." The conservative tendencies that prevailed in Ireland had led to Dr. Finnegan's action in this matter being very severely criticised in the district. It might perhaps help him if the meeting expressed their opinion on the subject. The speaker had no doubt of what their opinion would be, judging from the trend of their discussions that day, which had been strongly in the direction of progress, improvement, and increased freedom. He therefore proposed the following resolution for the acceptance of the meeting:—"That this Association has learned with great satisfaction that the Governors of the Mullingar Asylum have permitted patients to be sent out to agricultural work in neighbouring farms."

A long and interesting discussion followed.

The CHAIRMAN pointed out that Dr. Norman was in error in supposing that this was a new departure in Ireland. Some years ago it had been done in a northern asylum. An ill-feeling had arisen in the neighbourhood, and questions were even asked about the matter in the House of Commons. [This also occurred with reference to the Mullingar Asylum.]

Dr. PETIT stated that for ten years he had been in the habit of sending out patients from the Sligo asylum to work for the neighbouring farmers. He had seen no bad results. On the contrary, he was satisfied that many patients had benefited very materially. The system also had the advantage that it helped to break down the old prejudice against and fear of lunatics among the public out of doors.

Drs. PATTON, NELSON EUSTACE, O'NEILL, GORDON, and others also spoke.

Dr. MIDDLETON, being connected with the Mullingar Asylum as Visiting Physician, and being also one of those to whose farm Dr. Finnegan had sent patients, was glad to bear most emphatic testimony to the advantage that had resulted to the patients and to the perfect safety of the experiment.

Dr. FINNEGAN pointed to the results as being the best justification for his

action. The opposition offered to what he had done was, he was satisfied, quite fictitious. Nobody's interests were really injured by his sending out a few male patients to work on neighbouring farms. At all events he looked on the matter solely from a medical point of view, and regarded only the undoubted benefit to his patients. In the discharge of his duties he considered no one else.

Dr. WOODS having inquired carefully into the practical working of the subject, expressed himself satisfied that no exception ought to be taken to the employment on the score of injury to the interests of sane workers. He therefore seconded the resolution, which was then unanimously adopted.

A paper by Dr. VINCENT J. RUTTLEDGE was read on "A Case of Bilateral Atrophy of Certain Groups of Muscles in the Neck," and discussed by Drs. Patton, Nash, Middleton, and Norman. (We hope to have this paper for an early number of the Journal.)

Dr. NASH read a paper on "Alcoholic Neuritis with Mental Disease," continuing his observations communicated at the last Irish meeting with further cases.

Dr. NORMAN spoke.

A paper by Dr. W. C. SULLIVAN was read on "A Case of Sexual Perversion recurring in Acute Mania." (See Clinical Notes and Cases.)

Dr. NASH described a case occurring in a female patient at the Richmond Asylum, in which double pyosalpinx existed.

Drs. PATTON, GORDON, and MIDDLETON spoke.

Time running short, a paper by Dr. NOLAN "On Syphilis and General Paralysis" was unavoidably taken as read.

Dr. Patton having been moved to the second chair, a vote of thanks was passed to Dr. Garner for his conduct as Chairman, and a most agreeable and successful meeting terminated in a warm vote of thanks to Dr. Finnegan for having invited the members to meet at the Mullingar Asylum, and for having provided most hospitably for their needs, mental and physical.

MYXŒDEMA AND SPORADIC CRETINISM.

Arrangements were made to deliver a series of lectures and demonstrations on myxœdema before the Edinburgh Medico-Chirurgical Society on the 15th and 16th February. Never, probably, had so many cases of this rare disease been collected together, and the information given might be said to be complete up to date. Though the proceedings occupied two sittings, there was no spare time for discussion. Lecturing and not debating is the forte of the Medico-Chirurgical Society, as most of the speakers are attached to the Edinburgh Medical School. Towards the end the audience began to be somewhat weary of notes of cases which only repeated the same general history. The subject was introduced by Dr. Byrom Bramwell, who described with great clearness and precision the symptoms of myxœdema, which he contrasted with those of exophthalmic goitre and acromegaly. Dr. Bramwell also described cretinoid idiocy or sporadic cretinism, which he regarded as a congenital or infantile form of myxœdema. After explaining the nature of the affection of the thyroid gland in myxœdema, cretinism, and exophthalmic goitre, and the supposed deficiency of the pituitary body in acromegaly (megalakria would be a better word), Dr. Bramwell gave illustrations of the success of the treatment of feeding with portions of the raw thyroid of the sheep or pig. The interest of Dr. Bramwell's observations was enhanced by the introduction of several clinical cases of these diseases, and the exhibition of some very realistic coloured drawings.

Professor Greenfield explained the pathological character of the myxœdema, dwelling principally upon the atrophy of the glandular tissue of the thyroid, and the general increase of connective tissue in the body. Of 17 patients with

myxœdema whom he had seen two were insane. In one case he had carefully examined the brain, but could detect no change, though he found traces of neuritis in the peripheral nerves, which perhaps might be accounted for by the changes in the integument. Dr. Greenfield's paper was illustrated by a large number of preparations under the microscope, and some views of patients thrown from the magic lantern. Dr. R. A. Lundie then dealt with the treatment by injection of thyroid juice. He found that the raw thyroid, or thyroid extract, was a safer and equally efficacious method of treatment, and exhibited some cases in which improvement amounting to an absolute cure had followed his treatment. Dr. John Thomson showed two cases of sporadic cretinism—one a child aged four, the other a dwarf said to be eighteen—in which there was great improvement from thyroid feeding, both in the physical symptoms and in the intelligence. Other cases were exhibited by Drs. Affleck, W. Russell, A. Bruce, Dunlop, Church, Dr. A. T. Davies, of London, and Dr. Stalker, of Dundee. On the second day Dr. Murray, of Newcastle, appeared. He explained the process of reasoning and observation by which he had been induced to commence this new method of treatment, and cautioned his audience against the danger of large doses, whether in the form of injection of the juice or thyroid extract. Dr. Foulis gave a warning of the same kind. He had a patient who died within twenty-four hours after taking a quarter of a sheep's thyroid—that is, of the whole thyroid, for in the sheep it appears as two glands loosely held together by connective tissue. A safe dose seems to be to commence with one-eighth of a whole gland taken in rice paper. The fact that undoubted improvement has taken place from transplantation of the gland, and the use of thyroid juice in one form or another, cannot fail to excite reflection amongst those who have to treat insanity. The conclusion seems to be that the thyroid gland secretes and sends into the circulating fluid something useful to the function of the brain, and that the blood is not only a repairing, but a vivifying fluid, without whose stimulus the functions of the nervous system would cease.

THE FREEMANTLE ASYLUM FOR WESTERN AUSTRALIA.

The reports of the Superintendent and of a Select Committee of the Legislative Assembly on this Asylum afford an interesting view of the needs of the insane in this colony.

The Asylum contains 125 patients, of whom 26 are of the old Imperial convict class, Chinese and Malays forming a large proportion of the residue, many other nationalities being represented. These are under the care of six male and five female attendants, and appear to be crowded together without any possibility of separating the violent, obscene, and filthy from the decent, orderly, and convalescent. The mixture of nationalities must render this state of things doubly injurious and obnoxious.

The great predominance of the Malay and Chinese insane, it is suggested, is due to their being imported, there being no supervision of immigrants in this respect.

The Asylum has 13½ acres of ground, and already appears to be nearly surrounded by the rapidly growing city of Freemantle. Regret must, therefore, be expressed that the necessity which exists for the enlargement of the Asylum is not taken advantage of by transferring the institution to a more rural district, where a much larger area of ground could be obtained and segregation carried out on the plan of Alt Scherbitz and other insane farm colonies.

A reception house could be retained on the present site on the plan advocated by Dr. Norton Manning.

The Superintendent, Dr. Burnett, is to be congratulated on the manly and temperate expression of the great difficulties against which he has had to contend, in spite of an altogether inadequate pecuniary recognition of his services.

THE AMERICAN JOURNAL OF INSANITY.

We note with interest that the January number of this well-conducted Journal is printed and bound in the Utica State Hospital for the Insane. The reason for this is a very commendable one—that of giving occupation to the patients and of maintaining the Journal typographically on a footing of independence. We cordially wish success to our contemporary under the able editorship of Dr. Alder Blumer. In this connection we may observe that the above Hospital completed its semi-centenary on January 16th, 1893.

ST. JOHN AMBULANCE EXAMINATION.

FIRST AID CERTIFICATE.

At the St. John Ambulance Examination recently held at the Derby County Asylum, Mickleover, on 13th February, the result of which was made known on 6th March, 58 members of the staff went in for examination, of whom 55 successfully passed, including the two head attendants and all the attendants and nurses who were candidates.

Three candidates were rejected on account of having failed to satisfy the Examiner, Dr. J. W. Martin, Sheffield.

Lectures on General and Mental Nursing are to follow preparatory to examination for the nursing certificate of the Medico-Psychological Association.

AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

We are requested to call attention to the annual meeting of the above Association, so that the alienists of Great Britain and Ireland who are likely to attend the World's Fair at Chicago may have the further inducement to cross the Atlantic in order to be present. The date is June 6th continuing three days. On the 12th the Sessions of the International Congress will begin.

The Secretary of the American Medico-Psychological Association is Dr. Henry M. Hurd, Johns Hopkins University, Baltimore.

THE WORLD'S CONGRESS AUXILIARY.

The International Congress of Charities, Correction, and Philanthropy will be held June 12-18, 1893, at Chicago. Section 4 deals with "The Commitment, Detention, Care, and Treatment of the Insane." The Chairman is Dr. Alder Blumer, the Superintendent of the State Hospital for the Insane, Utica, and the Secretary Dr. A. B. Richardson, Superintendent of the Asylum, Columbus. It is hoped that it will be a truly international gathering for conference on the subjects allotted to this section. All who are interested in them are cordially invited to be present and to take part in the discussions. Those who are desirous of reading papers are requested to communicate with the Secretary.

"THE BLOT ON THE BRAIN."

We are glad to see that a new edition of this valuable work will be issued before long. This is all the more satisfactory when it is notorious that publications bearing upon mental disease meet with little encouragement. On the covers of most of them might be inscribed "Much toil and little gain." Dr. Ireland's writings are calculated to enlighten the reading public in regard to the true nature of many of the striking events which have been performed upon the stage of the world's history, being based upon psychological knowledge and a keen scientific insight into character, and merit success.

M.P.C. EXAMINATION.

DECEMBER, 1892.

The following Candidates for the M. P. C. in Scotland passed the Examination :—

Dr. A. W. Anderson.

Dr. J. T. West.

Dr. J. W. S. Attegale.

We much regret that by an oversight the name of Dr. Fennings was omitted from the List of Candidates who passed the Examination for the M.P.C. in England in December last.

M.C.P. EXAMINATION (IRELAND).

John Neilson Eustace, M.B., B.Ch.Univ.Dubl., and John O'Connor Donelan, L.R.C.P.I., L.R.C.S.I., obtained the Certificate at the examination held in Ireland in December, 1892.

Obituary.

PROFESSOR BALL.

The health of this distinguished alienist had been failing for a considerable time from January 17th, 1892, when he delivered his last lecture at the Asile de Ste. Anne, and he had been unable to engage in his professional work. He had an attack of paralysis and became aphasic, but it is understood that his mind was clear.

Dr. Benjamin Ball was born on the 30th of April, 1834, at Naples. His father was English, and his mother (*née* Audrat) was Swiss. In 1849 he was naturalized as a Frenchman. His medical career, which commenced in 1853, was a very brilliant one. In 1855 he was *Externe des Hôpitaux*, and in 1856 was *Interne*. He became M.D. in 1862, *agrégé à la Faculté* 1866, and *Hospita Physician* in 1870. He was the first Professor of Mental Diseases in the University of Paris. This was in 1877. He became a Member of the Academy five years later.

Dr. Klein, of Paris, writes :—" You yourself have known the man, and you know how various and wide was his knowledge, not only in medicine, general and psychological, but in all branches of science, as history, philology, geography, and philosophy. You also know, in common with all who have approached him, how kind, how good-hearted, and charming he was in everyday life, how broad-minded and tolerant of other people's opinions, and how willing and ready to help anyone, especially the English people. There is no doubt about his having been one of the most, if not the most eloquent professor of the Faculty of Paris. The Theatre of the St. Anne Asylum, where he used to deliver his lectures, was always overcrowded with students and others, attracted by the eloquence and sympathy of the master. His speech was so clear, the mode of marshalling facts so striking and vivid, that it used to impress the mind deeply. For myself, I may say that I was so strongly impressed by the first lecture I heard from him that I could have repeated it phrase by phrase, word by word, the day after it was delivered. The more I think about it, the more I realize how much I have lost by the death of this dear friend and master, in whose intimacy I lived for the last eight years."

Dr. Ball attended many medical meetings in England, and took a lively part in the discussions of the papers that were read.

He was a voluminous writer. A few only of his articles and works can be enumerated here:—"Leçons sur les Maladies Mentales;" "De la Morphomanie;" "De la Folie Erotique;" "La Claustrophobie;" "Ischémie Cérébrale Fonctionnelle;" "Les Impulsions Intellectuelles;" "La Torpeur Cérébrale;" "L'Insanité dans la Paralyse Agitante;" "Les Frontières de la Folie;" "La Folie Gémellaire;" "Folie Consécutive au Cholera," etc. To Dr. Tuke's "Dictionary of Psychological Medicine" he contributed the articles on "Insanity of Doubt" and "Insanity in Twins."

Dr. Ball died on Sunday, February 23rd. He was buried on the 26th. A service was performed by M. Monod, the Protestant Pastor, at his residence in Paris, and the remains were laid in a vault in the Montmartre Cemetery. MM. Charcot, Bronardel, and many other distinguished physicians and professors attended the funeral. By his own special request, no orations were delivered at the grave.

THE MAY QUARTERLY MEETING.

This meeting of the Association will be held in London on Thursday, May 18th, 1893.

FLETCHER BEACH,
Hon. Secretary.

The Elms, Chislehurst Road,
Sidcup, Kent.

Appointments.

CAMPBELL, COLIN MACIVER, M.A., M.D., has been appointed Hon. Consulting Physician to the Perth District Asylum.

DONELAN, J. O'C., L.R.C.S.I., L.M., and L.K.Q.C.P.I., appointed Assistant Medical Officer to the Richmond District Lunatic Asylum, Dublin.

FRANCIS, LLOYD, M.A., M.D.Oxon., has been appointed Medical Superintendent to the Earlswood Asylum.

JONES, R., M.D.Lond., B.S., F.R.C.S., has been appointed Medical Superintendent of the new London County Asylum, Claybury.

MAIR, L. W. DARRA, M.D.Lond., D.P.H., has been appointed Acting Medical Superintendent, Grove Hall Asylum, Bow.

NOBBS, ATHELSTANE, M.B., C.M.Edin., appointed Assistant Medical Officer to the Northumberland County Asylum, Morpeth.

ROBERTSON, G. M., M.B., C.M., M.P.C., has been appointed Medical Superintendent, Perth District Asylum, Murthley.

STANSFIELD, T. E. K., M.B., C.M.Edin., has been appointed Senior Assistant Medical Officer to the London County Council's new Asylum, Claybury, Woodford, Essex.

WALMSLEY, F. H., M.D., has been appointed Medical Superintendent to the Metropolitan Idiot Asylum, Darenth.

THE JOURNAL OF MENTAL SCIENCE.

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Vol. XXXIX.

PART 1.—ORIGINAL ARTICLES.

The Amok of the Malays. By W. GILMORE ELLIS, M.D.,
M.R.C.S., Medical Superintendent, Government Asylum,
Singapore.

We are all of us familiar with the expression "to run amuck," but perhaps comparatively few of us are familiar with the significance of the term in the Eastern Archipelago. Amuck, or, as it is properly spelt *Amok*, is a Malay word, and means a furious assault, its derivatives, *Mengamok* and *Pen-gamok* respectively, meaning to commit a furious assault and the person who runs *Amok*.

A Malay who runs *Amok* is always in a state of furious homicidal passion, and runs armed through the most crowded street or village stabbing right and left at man, woman, or child, relation, friend, or stranger.

For the convenience of this paper I shall call the man who runs *Amok* an "Amoker," and the crime "Amoking."

It is necessary to state at once that I do not in any way intend to discuss the point as to whether the judicial execution of men *Amoking* is right or wrong, or as to whether execution of all *Amokers* would tend to lessen the frequency of the crime. I believe Penang has claimed that the Chief Justice's (Sir Wm. Norris) sentence, which reads like one of those of the middle ages, and which I will give in detail later on, passed upon an *Amoker*, and carried out within eight days of the *Amok* in 1846, was the means of stamping out *Amok* entirely for years, but I can obtain no reliable information in proof of this. I intend trying to give a brief sketch of *Amok* and its causes, some notes on recent cases, and to point out a possible field in which its pathology may eventually be determined.

From 60 to 100 years ago in all Malay states and islands long poles with prongs at their ends, shaped like pitchforks, were kept in the villages, and at the then fairly frequent cry of "Amok! Amok" were used by the inhabitants to pin the unfortunate Amoker to the ground if caught up from behind, or, if approaching, to ward off his attack and keep him from coming near enough to use his weapon, which was generally a short spear, a Malay-curved knife (kris), or a chopper (parang). These prongs are to be seen in the more uncivilized parts of Malaya to this day. If caught whilst running Amok the mau was almost invariably treated as a mad dog, and killed on the spot in any way and by any means; but if he got successfully away and claimed the protection of his own or any neighbouring Rajah, he was at times taken by the Rajah as his slave, and allowed to marry none but a slave, any children subsequently born to him also becoming slaves. If the Amoker were an influential man, and the friends of his victims were willing to accept compensation, which was forthcoming, the Rajah also getting his share, he was frequently pardoned and taken back into his village. On the other hand, some Rajahs had all Amokers sentenced to death, and they were then immediately executed in the Malayan manner, which is as follows:—The victim is made to kneel down, the executioner approaches from behind, places a piece of teazed-out cotton in the right supraclavicular fossa to prevent the escape of much blood, and pushes a kris through the cotton diagonally across the thorax into the heart. At the present time in the English States, and in all European protected native States and islands, an Amoker is arrested, if possible, and tried in the law courts for his crime, but in a few of the less civilized States in the north of the Malay peninsula, and upon many of the islands of the Archipelago away from Dutch influences, the before-mentioned customs are still retained. The Bugis, natives of the Island of Celebes, are of all the Malay races by far the most addicted to Amok; in fact, nearly all Amoks occurring in Singapore within recent times have been run by men of this tribe. The inhabitants of the Island of Bali, situated at the south-east extremity of Java, are also said frequently to Amok, but few of these men ever come to Singapore. A better control over their impulses is undoubtedly being evolved among the more civilized Malays, for Amok is far less frequent now than it was formerly.

It may be interesting here to give an account of the Amok which occurred in Penang in 1846, and to which I have before

alluded. On the 8th July of that year a respectable Malay house-builder, named Sunam, ran Amok in Chulia Street and Penang Road, and before he was arrested had succeeded in killing an old Hindoo woman, a Kling man, a Chinese boy, a Kling girl, about eight years old, who was in the arms of her father, and in wounding two Hindoos, three Klings, and two Chinese, of which seven persons only two ultimately survived. On his trial it appeared that the prisoner had been greatly upset by the recent death of his wife and child, which had preyed upon his mind and quite altered his appearance. A person, with whom he had lived up to the 15th June, said as follows:—"He used to bring his child to his work, and since its death he has worked for me. He often said he could not work, as he was afflicted by the loss of his child. I think he was out of his mind. He did not smoke or drink." On the morning of the Amok this witness met the prisoner and asked him to work at his boat. He replied that he could not, as he was very much afflicted. He had his hands concealed under a cloth, and frequently exclaimed, "Allah! Allah!" At the trial Sunam declared that he did not know what he was about or what he had done, and persisted in this at the place of execution, adding, "As the gentlemen say I have committed so many murders, I suppose it must be so." The Amok took place on the 8th, the trial on the 13th, and the execution on the 15th July, all within eight days.

Sir Wm. Norris (the Chief Justice) passed sentence on the prisoner in these words:—

Sunam, you stand convicted on the clearest evidence of the wilful murder of Pakir Sah on Wednesday last, and it appears that on the same occasion you stabbed no less than ten other unfortunate persons, only two of whom are at present surviving. It now becomes my duty to pass upon you the last sentence of the law. I can scarcely call it a painful duty, for the blood of your innocent victims cries aloud for vengeance, and both justice and humanity would be shocked were you permitted to escape the infamy of a public execution. God Almighty alone, the great searcher of hearts, can tell precisely what passed in that wretched heart of yours before and at the time when you committed these atrocious deeds, nor is it necessary for the ends of justice that we should perfectly comprehend the morbid views and turbulent passions by which you must have been actuated. It is enough for us to know that you, like all other murderers, had not the fear of God before your eyes, and that you acted of malice aforethought and by the instigation of the devil himself, who was a murderer from the beginning. But all the atrocities you have committed are of a

peculiar character, and such as are never perpetrated by Christians, Hindoos, Chinese, or any other class than Mahomedans, especially Malays, among whom they are frightfully common, and may, therefore, be justly branded, by way of infamous distinction, as Mahomedan murders. I think it right, therefore, seeing so great a concourse of Mahomedans in and about the Court, to take this opportunity of endeavouring to disabuse their minds and your own of any false notions of courage, heroism, or self-devotion which Mahomedans possibly, but Mahomedans alone of all mankind, can ever attach to such base, cowardly, and brutal murders; notions which none but the devil himself, the father of lies, could ever have inspired. But if such false, execrable, and dangerous delusions really are entertained by any man, or body of men whatever, it may be as well to show from the gloomy workings of your mind, so far as circumstances have revealed them, that not a particle of manly courage or heroism could have animated you, or can ever animate any man who lifts his cowardly hand against helpless women and children. You had lately, it seems, been greatly afflicted by the sudden deaths of your wife and only child, and God forbid that I should needlessly harrow up your feelings by reverting to the subject. I do so merely because it seems in some degree to explain the dreadful tragedy for which you are now about to answer with your life. Unable or unwilling to submit with patience to the affliction with which it had pleased God to visit you, you abandoned yourself to discontent and despair, until shortly before the bloody transaction, when you went to the mosque to pray. To pray to whom or to what? Not to senseless idols of wood and stone, which Christians and Mahomedans equally abominate, but to the one omniscient, Almighty, and all merciful God in whom alone Christians and Mahomedans profess to believe. But in what spirit did you pray, if you prayed at all? Did you pray for resignation or ability to humble yourself under the mighty hand of God? Impossible. You may have gone to curse in your heart and gnash with your teeth, but certainly not to pray, whatever unmeaning sentences of the Koran may have issued from your lips. Doubtless you entered the mosque with a heart full of haughty pride, anger, and rebellion against your Maker, and no wonder that you sallied forth again overflowing with hatred and malice against your innocent fellow creatures; no wonder that, when thus abandoned to the devil, you stabbed with equal cruelty, cowardice, and ferocity unarmed and helpless men, women, and children, who had never injured, never known, probably never seen you before. Such are the murders which Mahomedans alone have been found capable of committing. Not that I mean to brand Mahomedans in general as worse than all other men, far from it; I believe there are many good men among them, as good as men can be who are ignorant of the only true religion. I merely state the facts that such atrocities dis-

grace no other creed, let the Mahomedans account for the fact as they may. But whatever may be the true explanation, whether these fierdish excesses are the result of fanaticism, superstition, overweening pride, or, which is probable, of all combined, public justice demands that the perpetrators should be visited with the severest and most disgraceful punishment which the law can inflict. The sentence of the Court, therefore, is that you, Sunam, be remanded to the place from whence you came, and that on the morning of Wednesday next you be drawn from thence on a hurdle to the place of execution, and there be hanged by the neck until you are dead. Your body will then be handed over to the surgeons for dissection, and your mangled limbs, instead of being restored to your friends for decent interment, will be cast into the sea, thrown into a ditch, or scattered on the earth at the discretion of the Sheriff, and may God Almighty have mercy on your miserable soul!

The case just described suggests many reflections pointing in different ways, and the sentence at the time appears to have been severely criticized, it being asked if justice should so closely imitate revenge as almost to kill the criminal red-handed. Had the trial not followed so rapidly on the crime it is possible that a different view might have been taken of the condition of mind under which the criminal acted. I am unable to discover that any medical man examined Sunam as to his mental condition; under the circumstances a strange omission. Sir Wm. Norris seems to have been under the impression that Amok has something to do with Mahomedanism, that the murder of infidels (*i.e.*, non-Mahomedans) is advocated, or at least spoken well of in the Koran, and that to be killed while running Amok is a sure road to heaven. To this day this is frequently put forward by some European residents as the real reason for committing Amok. Never was there a greater error; Amok is a peculiarity of the Malay race, and the fact of their all being Mahomedans has really nothing to do with it. As to the Koran, I have studiously searched through it for anything bearing on the point, and can find nothing, and questioning educated Malays has given the same result; besides, did the Koran commend such an action Amok would be of daily occurrence among such bigoted Mahomedans as many of the Malays are. Let me quote here two sentences from the Koran—"And fight for the religion of God against those who fight against you, but transgress not by attacking them first, for God loveth not the transgressors;" and, again: "Let there be no violence in religion." Moreover, a Malay is no respecter of persons when Amoking, and he stabs members

of his own race and religion, should he come across them, with the same indifference with which he would stab others, an action he would certainly not commit were the Koran or his religion in any way the cause of the outbreak. Concerning such a crime the Koran says: "But whoso killeth a believer designedly his reward shall be hell, he shall remain therein for ever, and God shall be angry with him, and shall curse him, and shall prepare for him a great punishment."

I have been told by educated Malays, supposed to know something of the ancient history of their country, that Amok was prevalent before their conversion to the Mahomedan religion, but as this event occurred several hundreds of years ago, and there are but few Malay records even one hundred years old, the statement must be received as most unreliable.

Dr. Oxley, in a medical report written on Singapore about the year 1845, says:—

Amoks result from an idiosyncrasy or peculiar temperament common amongst Malays, a temperament which all who have had intercourse with them must have observed, although they cannot account for or thoroughly understand it. It consists in a proneness to chronic disease of feeling, resulting from a want of moral elasticity, which leaves the mind a prey to the pain of grief, until it is filled with a malignant gloom and despair, and the whole horizon of existence is overcast with blackness. . . . These cases require discrimination on the part of the medical jurist to prevent irresponsible persons suffering the penalty of the injured law. For instance, a man sitting quietly amongst his friends and relations will, without provocation, suddenly start up, weapon in hand, and slay all within his reach. I have known as many as eight killed and wounded by a very feeble individual in this manner. Next day, when interrogated whether he was not sorry for the act he had committed, no one could be more contrite. When asked "Why, then, did you do it?" the answer has invariably been, "The devil entered into me; my eyes were darkened; I did not know what I was about." I have received this same reply on at least twenty different occasions. Those about these monomaniacs have generally told me that they appeared moping and melancholy a few days before the outbreak.

Infidelity of wife, grief (especially that due to the death of a near relation), sight of blood (especially the person's own), brooding over real or imaginary wrongs, loss of money by gambling, loss of hope of living (as in a foundering ship), shame and disgrace (such as being considered a coward or being imprisoned), and last, though by no means least, malarial

fever, have all been noted as exciting causes to Amok. Should a man kill his wife and her paramour, and then sit quietly down, he is not considered to have run Amok, and, according to Malay laws, his action would be justifiable, but there are few instances recorded of such an action, for the mere fact of killing the two culprits would, in nearly all cases, excite the unfortunate husband to Amok and slay other and innocent beings. Many Malays have told me that they consider Amok a kind of suicide; a man, from some cause or other, considers life not worth living, and wishes to die—suicide is a most heinous sin according to the ethics of the Mahomedan religion, therefore he Amoks, in the hope of being killed. Concerning the crime of suicide, the Koran says—“Neither slay yourselves, for God is merciful towards you, and whoever does this maliciously and wickedly he will surely cast him to be broiled in hell fire; and this is easy with God.” I cannot discover that any Malay has ever been known either to commit or to attempt to commit suicide after having run Amok. Suicide is extremely rare amongst Malays, and only one attempt has ever been brought to my notice. This was the case of an English-speaking Malay, born in Ceylon, who cut his throat rather severely whilst suffering from acute melancholia; he refused all food, and was fed by the pump for weeks, and did not recover for more than a year.

I will now give in detail two typical cases of Amok, both of which occurred in Singapore:—

On November 5th, 1887, there were sleeping in one room Mamoot (boy, æt. 16), Ahamat (the owner of the house), a Malay girl, Hadji Ibrahim (a Bugis trader), and his brother Aboo. At about 11.30 p.m., Hadji Ibrahim suddenly got up and attacked Ahamat with a long cutting and pointed knife, inflicting an incised wound down to the bone of the left temple, a long deep incised wound on the left shoulder, a deep incised wound in the middle of the back, an incised wound of the front of the left side of the thorax, penetrating through the ribs to the lung, a stab on the left side of the abdomen, wounding the intestines, and there were deep gashes on the hands and forearms. During this attack Mamoot, Aboo, and the girl ran away into the street; they were all asleep when the attack commenced. Hadji Ibrahim must now have jumped out of a window into the back court of an adjoining house, which he found open. He entered this house, and went upstairs into a room, where he found Mariam and Umborasih (two Malay women) sewing, and a man named Syed asleep. He immediately rushed across the room and stabbed Mariam several times in the back, and Syed in five places. Mariam and Umborasih ran downstairs, and Hadji Ibrahim left Syed and followed them,

stabbing Mariam again and Umborasih to the heart. None of Mariam's wounds were very serious, but Syed had several severe cuts and stabs. Continuing the Amok, Hadji Ibrahim ran out of the house into the street, meeting Mariam's husband at the door; making two ineffectual stabs at him as he passed, he ran on up the street. Neither Mariam, Syed, Umborasih, or Mariam's husband knew Hadji Ibrahim. In the street the first man he met was a Kling, and him he stabbed in the chest and twice in the right forearm. Further on he met two Chinamen; one ran safely away, but the other was stabbed in the abdomen, the knife passing through liver, intestines, and stomach. The next to be met was a Malay named Bakar, whom he stabbed in the forearm as he ran by to attack a Malay named Sed. Sed grasped the knife with his hands and a struggle ensued, in which Hadji Ibrahim lost his weapon and Sed obtained two slight wounds. The Amoker now ran off unarmed, and was chased, by Sed and other people who had come up, into the arms of a native constable, by whom he was arrested. Ahamat, Umborasih, and the Chinaman were picked up dead; the five wounded persons recovered. The prisoner, when arrested, had an excited, hunted expression, was sullen, and refused to answer questions bearing on his crime, but I can glean no further information as to his condition. At the assizes he was found too insane to plead. He first came under my notice rather more than a year after the crime, and there is little to be said about him. He was a tall, spare man, about 40 years old, pitted with small-pox marks, with a quick, irregular heart's action, and a wild stare in his eyes. He rarely spoke unless addressed, but was perfectly rational and coherent in his answers. He was cleanly and industrious, and slept and ate well. When spoken to about his Amok, he always became somewhat confused, and persisted in saying that he remembered absolutely nothing about it. At the present time he is fairly cheerful, quite rational and coherent, memory very fair, in good physical health, but his heart is slightly hypertrophied, pulse hard, and heart's action somewhat irregular. Although he knows that any confession can now make no difference to his future, he still denies any recollection of the Amok, and says, "As you state I committed these murders and murderous assaults, I suppose I did, but I remember nothing of it."

The second case was that of a man named Nyan.

Nyan came to Singapore on January 4th, 1890, four days before Amoking, with a party of traders from Brunei and Borneo, and all went to a lodging-house. On the evening of January 7th he went for a walk in a part of the town three miles from the lodging-house, and there met a man named Noor, whom he had never seen before, and after having a chat with him, asked to be allowed to sleep in his house that night, and this request was granted. On

the morning of the 8th, Nyan returned to the lodging-house, Noor accompanying him; they went into an empty upstairs room, and Noor was given a cigar and left by himself, Nyan entering an adjoining room, where were Awang and Mahomet, Bornean Malays, and members of his party. Awang was ill in bed, and Sleyman, his father, entering shortly afterwards, they all conversed amicably together. Nyan remained but a short time, leaving the room and going downstairs. He is supposed to have gone to an outhouse, where was his box, and obtained from it a kris and a parang. In the meantime, Mahomet also went downstairs, entered the eating-room and commenced to eat some fruit, and whilst he was sitting there, Nyan came in, and, without saying a word, cut at him, wounding him on the face and on the left forearm. Mahomet then fled upstairs, closely chased by Nyan, who succeeded in wounding him in the back as he jumped down a second staircase and got away. The Amoker now entered the room in which was Noor, attacked him, cut off his left hand at the wrist, and wounded him on the head and ear as the poor old fellow jumped out of the window into the street. Continuing the Amok, Nyan entered the room in which were Sleyman and his sick son, Awany. Sleyman promptly jumped out of the window, dislocating his ankle as he fell, and the body of Awang was afterwards found with the following wounds:—Right hand cut off with the exception of a small portion of the skin, a cut at the back of the head going into the brain, a cut five inches long at the back of the right shoulder wounding the scapula, two stabs in the back, one penetrating the lung, a long cut on the left of the front of the chest going through the ribs into the pleural cavity, and a stab between the fourth and fifth ribs completely piercing the heart. After this ferocious attack, Nyan got out of a window on to the roof of some outhouses, and tried to enter the adjoining house through a window, that he found open, but was prevented by a man inside with an old unloaded gun. He then got off the roof and out into the street, which he crossed. He then entered the sea, and was shortly afterwards arrested by a policeman in a boat, after first throwing both his kris and parang at his captor. None of his friends forming the party knew of any cause for the outbreak, and he had not quarrelled with any of them. Sleyman had known him for ten years as a quiet and industrious man. The ferocious attack on Awang could certainly be only the action of a madman, quiet and rational as Nyan was when I examined him but a short time after the occurrence. Nyan's story was that he overheard his friends say that he was not fit to live, and ought to die, so, getting frightened, he ran away and was kindly put up for the night by Noor. Coming back the following morning he again heard them speaking of him, and getting still more frightened he went for his weapons to protect himself, and then everything became red before his eyes and he can remember nothing more.

This man also has a quick, easily excited heart's action, and a peculiar stare in his eyes, which show much sclerotic, otherwise, although under observation for the last two years, I can discover nothing abnormal about him; certainly he does not appear to ever suffer from either visual or oral hallucinations. He is averse to being questioned as to the Amok, has a malignant expression, and his respirations become short, if so spoken to. He persists in the statement that after seeing everything red he remembers nothing until he found himself in the hands of the police. At his trial he was acquitted on the ground of insanity, and sentenced to be detained during her Majesty's pleasure.

I may mention here a case of doubtful Amok that occurred in the lunatic asylum early in the year 1889, and which varies from the other cases in that the Amoker had an undoubted attack of mania a month prior to his outbreak.

Mounselin, a male Javanese, about 32 years of age, admitted December 10th, 1888. Was then incoherent and rambling in his speech; could give no connected account of himself; said that his countrymen had a spite against him; had a vacant expression of face, and was dirty in his habits. He had been arrested as a wandering lunatic by the police, and we were unable to obtain any history of him prior to his arrest. The day after admission he refused food, and would not speak, slept but little, and was very dirty, and so he remained for three days. On the 18th December he was much better, fed himself, spoke rationally, and was anxious to work with the gardeners—his own occupation. I have a note in my case-book dated 5th January, 1889. Is now quite well, sleeps and eats well, converses rationally, works industriously with the gardeners. On the 15th January he suddenly clutched the scythe of one of the gardeners, and took it from him, wounding his fingers, and running with it to a part of the asylum where were a few chronic demented out for an airing. He attacked and seriously injured an old Chinaman before he was knocked down and disarmed by the attendants. I examined Mounselin immediately after this unfortunate event; he was sullen, squatting down taking little notice of anything; he had a mixed expression of fear and malignancy, and showed an enormous amount of sclerotic; his respirations were short and hurried, and his cardiac action irregular and quick. If pressed he answered my questions rationally on all manner of subjects, but when asked about the assault he would only say "I don't know; I can't remember." For months afterwards he remained quiet and industrious, but was somewhat sullen at times, especially if questioned about the Amok. On August 28th a piece of sharpened iron was taken from him, a second piece which he had commenced to sharpen being found concealed in his cap. A few days after this he was found to have tied a piece of string tightly round his

scrotum, which had commenced to slough. At this time he would neither speak nor take food; his heart's action was most irregular, and he was slightly anæmic. He became very weak, and remained in a feeble condition, requiring at times to be fed by the stomach-pump, until May, 1890. Then he again became quite rational and industrious, and said he remembered nothing of what had passed; but he was always looked upon with suspicion, both on account of his shifty expression and the abnormal action of his heart. The following month he was attacked with beri-beri, and he died in August. Unfortunately I was away when he died, and did not see the post-mortem. From our register I gather that his pia mater was thickened and opaque, his cerebral blood vessels, especially those of the base, atheromatous, his heart large and flabby, the pericardium containing eight ounces of clear fluid (due to the beri-beri), and the aortic valves being atheromatous; his abdominal viscera were congested, and his kidneys small.

Are these Amokers insane and unable to refrain from obeying their homicidal impulses? I think so. In fact, considering how they mutilate some of their victims—victims they have never seen before, and whom they can have no reason to slay—I fail to see how anyone can doubt it. Dr. Savage writes, in an article called “The Plea of Insanity,” published in the “Journal of Mental Science” for April, 1891: “And in my experience prisoners are safest when they deny all memory of acts, and if they can be persistent in their denials they will baffle the most acute, for a time at least.” It is this denial of all knowledge of their offence that persons who have Amoked invariably persist in that makes it most difficult to deal with their case, and which causes a large proportion of the Straits Settlements public to believe them feigning insanity to avoid punishment for their crimes. Personally, I believe all Malays consider imprisonment for life a greater punishment than execution by hanging. If malingering would they one and all deny their insanity, would they months after the crime and trial, with no fear of further punishment hanging over them, still persist that they remembered nothing of their criminal acts, and with such an air of telling the truth? They remember that they were depressed, that they were upset, that they suffered from grief, in fact, that their affective nature was at fault. Many of them speak of having seen everything red, of having been giddy, or of their eyes having been turned inwards, but then comes the blank. In from a few hours to a few days after the Amok these afflicted individuals go back to their normal state, passing through a stage of sullenness and apathy, into which they are liable to relapse for months after-

wards, if much questioned as to their outburst. It was but a few weeks ago that I examined a man about 48 hours after running Amok and killing one person. He was then depressed, would not raise his head, and would only speak in a whisper. His respirations were short and hurried, and his cardiac action quick and regular. He spoke coherently, telling me that he had been greatly upset of late by the elopement of his wife, and that he had brooded over this; he remembered seeing everything like blood, and then he remembered nothing more until he found himself in confinement, accused of murder. He could or would tell me nothing further about his crime. This man a few days later brightened up considerably. At his trial he was acquitted on the plea of insanity, and ordered to be detained during her Majesty's pleasure.

There is a peculiar condition of mind the Malay is liable to, to a greater or lesser extent, in which he sits down and broods over his wrongs, or supposed wrongs, with revengeful feelings, to which the name of "sakit-hati," literally heart-sickness, is given. Persons suffering from "sakit-hati" have been sent to this asylum. They do not appear to be really insane, and as a rule quickly recover. They remain in the condition for periods varying from a few hours to a few weeks, but rarely longer than four or five days. Their state is very similar to that of a bad-tempered child sulking and having occasional outbreaks of wrath. At these times their activity, especially of brain, is low, for it has frequently struck me that they have shown some slight impairment of memory when questioned afterwards as to what had occurred. Heredity, I think, has nothing to do with the condition, otherwise than the heredity of the whole race, for all Malays are subject to these attacks. Many have told me that the man who has run Amok always suffers from "sakit-hati" prior to his Amok, and I am of opinion that careful examination of the Amoker shortly before his outbreak, were it possible, would invariably show divergencies from the man's usual habits, and in some cases marked peculiarities. An instance of this occurred last month in Province Wellesley, where one Mat Saman reported at the police-station that his friend Salim had suddenly commenced behaving in a strange way. The police went to Salim's house, but he had gone, and all search proved of no avail. On the following morning Salim entered a shop some distance away, and instantly attacked the shop-keeper with a knife, then running out and up the village he stabbed a second man before he was knocked down and captured. The shop-keeper was

fatally injured. Salim was examined by the Colonial Surgeon a few hours after his capture, and I am told he was then excited and nervous, with a tumultuous heart's action, and that he answered questions wide from the subject. The next day he was morose, sullen, and apparently brooding over something, but by the fourth day he seemed quite well. His friends have communicated that for several days before the Amok he gave up all work, avoided intercourse with others, and was evidently brooding over something, but they could not discover what.

Bevan Lewis, in his text-book, writing on the fulminating psychoses, says:—"In the genuine impulsive forms of insanity consciousness is never so far impaired as to issue in forgetfulness of the details of the homicidal act. When such is the case—when any marked obscuration of memory is apparent—we may presume the impulse to have been of epileptic origin, or to be the outcome of alcoholic delirium."

The aversion of the whole Malay race to alcohol in any form places the last-mentioned disease out of the field in seeking for the pathology of Amok. Dr. Maudsley, writing about masked epilepsy, states "that many cases of so-called transitory mania are really cases of this kind—cases of mental epilepsy. Instead of the morbid action affecting the motor centres and issuing in a paroxysm of convulsions, it fixes upon the mind centres, and issues in a paroxysm of mania, so to speak, an epilepsy of mind." Ordinary epilepsy is comparatively rare among Malays; out of over one hundred insane of this race I have only seen one epileptic, a youth of about 20 years of age, who has from one to two fits a month, and is quite demented. As in epilepsy strong emotions sometimes bring on a convulsive seizure, caused by disturbances in the motor centres, so I believe that in some Malays strong emotions bring on sudden paroxysms of acute homicidal mania, due to disturbances in the sensory centres, *i.e.*, masked epilepsy. But, whether this be so or not, I contend that the man who runs Amok, such as I have described, undoubtedly suffers from some form of impulsive insanity, generally of a most transient character. It may be that the Amoker in some few instances wilfully allows his emotions full play when he might control them, desiring to die, and knowing that the culminating point will be Amok; on the other hand, in the majority of instances the impulse to Amok is sudden and uncontrollable. Those who wilfully work themselves into, or allow themselves to drift into, a blind rage, and then Amok, although I believe quite unconscious as to their

actions whilst running Amok, should, to a certain extent at least, be held responsible for their actions, for they must thoroughly understand what is likely to be the result of that first wilful action. As a man who of his own free will makes himself drunk, and in blind drunken rage, more or less unconscious of his actions, commits a crime, is responsible, so are they.

Insanity in Greece. The Hospital of Athens. By F. B. SANBORN, Esq., late Inspector, Massachusetts State Board of Health, Lunacy and Charity.

Little has been written, and comparatively little is known with precision, concerning the insane of Greece—whether we speak of the little kingdom alone, with its present population of nearly 2,500,000, or of the Greeks in general, who live in Macedonia, in Asia Minor, in Egypt, or elsewhere outside of the present limits of Greece. This whole community, diverse in origin and residence, but united by a common language and a common religion, considers itself as one, and sends to the two asylums in Greece—the old *Phrenokomeion* of Corfu (founded in 1838), and the comparatively new *Dromokäiteion* in Athens—insane persons from all the countries in which Greeks reside. Thus, during the year 1892 the Athenian Asylum (which takes its special name from a Greek family named Dromokäites, whose wealth has endowed it) received 70 admissions; and of these 13, or nearly one-fifth, came from places outside of Greece. A smaller proportion among the 175 (more or less) who now reside in the Corfu Asylum are from outside of Greece, and it is probable that this proportion is constantly diminishing there. But Athens, from its central position, its rank as a capital, and the affection with which most Greeks regard it, is likely to draw to itself more and more the persons attacked with insanity outside of Greece. This fact will increase a little the visible insanity of the kingdom; but so many are the causes tending to conceal the extent of this malady there that the circumstance of these outside accessions need hardly be taken into account. There is no census of the Greek insane, even professing to be exact, and I have been forced to rely, in my tours and inquiry during two visits to Greece (in 1890 and 1893), on the estimates of careful persons and my own observation.

Insanity in Greece is not so common, I am convinced, as in

the northern countries of Europe or the older parts of the United States, with which, in this respect, I am quite familiar. Massachusetts (U.S.A.), where I have long resided, and where, for 30 years, I have studied the condition of the insane, has a population almost exactly the same as that of the Greek kingdom—let us say 2,500,000. But there are at present in Massachusetts not less than 7,000 insane persons, and probably 7,500; while Dr. Chirigotes, the chief expert of Greece, does not estimate the Greek insane at much above 2,000, which would agree with my own observation. If the number in the two States who are receiving asylum treatment is compared, the disproportion between Massachusetts and Greece appears still more striking. For in Greece there are no more than 300 insane persons in asylums—116 at Athens and less than 190 at Corfu—while in Massachusetts more than 4,500 are in asylums of the same general character as those mentioned; that is to say, the proportion of cases under treatment in Massachusetts is 15 to 1, as compared with Greece, while, by estimate, the proportion of all the insane in the two States is less than 4 to 1. But why should this different ratio exist in two communities of the same population? There are various reasons, one of which is the far less prevalence of alcoholic insanity in Greece, as compared with England, France, and New England; another is the lack of a dense population, which everywhere promotes insanity by its complications of disease and vice; a third, undoubtedly, is the difference of race.

The Greeks as a nation are prone to crime, at least to crimes of violence, which are shockingly numerous among them; but they are not so much addicted to vice as are their neighbours, East, West, or North. Now vice is a very frequent cause of insanity, which is also promoted, no doubt, by that greater freedom from traditional habits and modes of thought which high civilization produces. That fatal form of insanity, so distressingly prevalent in Western Europe and the densely peopled parts of America—general paralysis—is much less common in Greece; and this is a malady which almost always proceeds from vice, and generally from debauch. For this reason it is less common among women than men, and among Greek women far less common—as statistics seem to show—than among women in France, Germany, or the northern United States.

The present Director of the Athenian *Phrenokomeion* (Dromokäiteion), Dr. Chirigotes, was in 1877 at the head of the

Corfu Asylum ; and his report for that year gives much information respecting the early history thereof. It was founded by Sir Howard Douglas in 1838, 25 years before the English ceased to govern the Ionian islands ; it was at first very small, but in 1867 it treated 130 patients (93 men and 37 women) ; in 1873 (20 years ago) there were 150 (112 men, 38 women) ; but at the beginning of 1878 there remained only 104 patients (84 men and 20 women). Thus in forty years it had only reached this small number of resident patients. But the Athenian Asylum, which only opened in October, 1887, had 44 patients, January 1, 1888, and 116, January 1, 1893, showing a much greater rate of growth.

At my last visit, April 28th, 1893, the number of patients was a little less than this—114—but when the new building is completed, which Dr. Chirigotes is erecting for 40 patients of the poorer class, it will soon be filled, the capacity of the asylum being thus far the only limit to its number of patients. When I first visited it, in March, 1890, there were less than 70 patients ; whoever shall go there in 1894 will probably find 140, for it will have doubled its number in four years. Its proposed building limit at present is for 250 patients, and it may be five years before detached buildings of that capacity will be completed ; but when that is done it will not be long before they will be filled with the insane, since Greece is no exception to the rule of constant increase.

Dr. Chirigotes has practically planned and built his asylum, and it differs somewhat from any which I have yet seen. The situation is fine—three miles to the north-west of Athens, on the road to Eleusis, upon high ground, overlooking the beautiful Attic olive grove between Mount Ægaleos and the Acropolis, and commanding also a noble view of the sea and the mountains which give to Athens so great and peculiar a charm. The estate is not very large—less than 100 acres—and the water supply for purposes of irrigation is rather inadequate, so that the grounds do not yet present that aspect of fertility and shade which is so attractive in asylums of more northern climates. But time and cultivation will change this, while nothing can deprive the *Dromokäiteion* of its noble position in front of Athens, and in view of Hymettus, Pentelicus, and Parnes—the ranges which shut in the Attic plain.

The buildings are all detached, and none of them are large, nor is it proposed that they shall be. They are built with high storeys, because heat is more dreaded than cold in Attica, and they have abundance of light, air, and space. The groups are

twofold—one for the paying patients, some of whom pay as much as 4,000 drachmæ a year, which is about £115, a little more than two guineas a week—and the other for poor patients, who reside in larger day-rooms and dormitories, instead of having one or two rooms to each patient, as in the most costly class. The lowest sum paid by families for an insane member is 1,200 dr. a year—say £35—but there are 30 or 40 of the 116 patients who pay nothing, but are supported from the funds of the asylum. These funds are drawn upon to their full extent, and therefore there can be no accumulation of them except by further donations, the Government paying little or nothing towards the expenses of the asylum. This has its advantages, inasmuch as it keeps the establishment free from political influences, and allows it to be managed without serious interference by official persons not acquainted with its needs. The whole expenses in 1892 were 230,341 drachmæ, about £6,580, for an average of 110 patients, about £60 each. The whole property of the asylum is now rated at 1,104,094 drachmæ, nearly £31,600, not a very large sum, and one that requires to be well husbanded. Its financial management is excellent; and its course of treatment for patients is in many respects exemplary. They do not seem to have sufficient employment, but this is a defect of most establishments for the insane in which wealthy patients are received. The number of attendants is larger than in most asylums, even for the wealthy, and it would not seem difficult to organize occupation, both of employment and amusement, for the patients. The climate of Attica admits of outdoor pursuits more days in the year than most climates; even in winter there are few days in which the cultivation or ornamentation of the estate could not be carried on; and although in the hot summers, from June 1 to September 15, there are many hours when labour and exposure to the sun are oppressive, and even dangerous, yet there are morning and evening hours when it is not so. The buildings are well arranged to diminish the annoyance of heat, and there must usually be a breeze, either from the sea or the mountains, where the *Dromokūiteion* stands, on its high slope of hills.

I ought to bear testimony to the devotion, experience, scientific knowledge, and other high qualities of Dr. Chirigotes, the director for ten years of the asylum at Corfu (1877-1887), and now for about six years at the head of this interesting Athenian Asylum. All the more ought this to be done because he labours in a field apart, and is but little known, perhaps, to his professional brethren of Western Europe. He is a Greek,

and writes his reports in Greek, a language not yet widely known in its modern form, outside of the Greek-speaking communities of the Levant. This prevents his ingenious, sensible, and often profound observations on his life-specialty from being much known where Greek is not read; and even here, though he is highly valued, I fancy he finds but few persons who enter into his plans and wishes for the better treatment of the insane in these interesting countries. There is hardly any situation in life which appeals more forcibly to men of generosity than that of an accomplished person devoting himself religiously, and with the true bias, both of a man of science and a philanthropist, to the improvement of a class so helpless and forlorn as the insane; especially if he works in solitude, and finds few to echo or even to understand the voice which he raises in their behalf. Such a man I esteem Dr. Chirigotes to be, and I do not speak without frequent observation of his methods, his isolation, and the instructive character of his yearly reports. He is also a man of much practical talent, and both the asylums with which he has been connected are remarkable for the frugality of their management and the important results obtained with a small outlay of money. Thus in the Corfu Asylum in 1877 he cared for an average of 105 patients at the annual cost of 44,914 drachmæ (about £1,500), say £14 6s. for each patient, or five shillings and fourpence a week. The Athenian Asylum, intended for a wealthy class of patients, with many poor persons included however, cost last year, as I have said, 230,341 drachmæ for its current expenses, with an average of 110 persons, about £60 for each, or £1 3s. a week. In England I fancy such care would have cost £2 or £3 a week, and in New England, I am sure, it would cost at least £2 10s. The whole funded property of the *Dromokäiteion* is valued at 1,104,094 drachmæ, about £31,600; and it is upon the income from this, mainly, that reliance is placed for the maintenance of the poor persons who find treatment there. I hardly know an establishment where such good results are obtained with such frugal outlay; but then frugality is the rule in Greece.

What then are the results of treatment by Dr. Chirigotes? I have not the full reports of his work in Corfu, but in the eight years before he took charge there, together with his first year, 1877, there were 350 discharges, of which about 50 were recoveries, 141 were deaths, and about 158 were discharged without recovery. This shows the usual result in a chronic asylum, to which few new cases are admitted. In the

Athenian Asylum, although many chronic cases were admitted in the first six months, from October, 1887, to April, 1888, yet the results have been widely different from those in Corfu. The whole number of admissions from October, 1887, to January, 1893, was 361, covering, I suppose, about 350 different persons. Of these 361 there had been discharged up to January 1st, 1893, 245, of whom 66 had recovered and 57 had died, leaving 116 then under treatment. This shows a preponderance of recoveries over deaths, which would have been considerably greater but for the number of deaths from general paralysis; these have been about 15 in the five years, I believe. Of the comparative prevalence of this fatal malady in Corfu and at Athens, Dr. Chirigotes said in his first report (up to January 1st, 1889) that there were not so many cases of general paralysis among his 400 patients in Corfu, during the ten years 1877-1886, as among the 88 cases received at the Athenian Asylum in its first 15 months.

With these imperfect observations, which may, perhaps, lead others more competent to write on the interesting subject of insanity in Greece, I submit the matter to the readers of the "Journal of Mental Science."

*The Treatment of Myxœdema and Cretinism, being a Review of the Treatment of these Diseases with the Thyroid Gland, with a Table of 100 Published Cases.** By CECIL F. BEADLES, M.R.C.S., L.R.C.P., Assistant Medical Officer, Colney Hatch Asylum.

Introductory.

I propose in the following paper to review briefly the treatment that has recently been made use of in myxœdema, and compare the several ways in which it has been carried out, after a few preliminary remarks on the pre-thyroid methods.

First let me note that myxœdema, although not common, is now known not to be so rare a disease as was supposed only a few years back. During the past five years, that is to say from the year 1888, when the profession was more generally

* The most important discussions that have yet taken place are those at Nottingham in July, 1892 (in the early days of the new thyroid treatment), and Edinburgh, February 15th and 16th, 1893. To the reports of these I would direct your attention. I understand that at the annual meeting of the British Medical Association, at Newcastle, in August next, Prof. Horsley has promised to open a discussion on "The Thyroid."

awakened to the existence of this disease by the Clinical Society's report, up to the present time a careful search reveals just 200 distinct cases* referred to in the various medical journals of this country. But the vast majority of cases go unrecorded, for until within the last eighteen months cases were seldom reported unless there was something of particular interest in the symptoms of the case, or some point in the pathology of the disease that was thought worthy of notice.

The Older or pre-Thyroid Methods of Treatment.

From the time Sir William Gull† in 1873 first called attention to the disease now known under the name of myxædema,‡ up to July, 1891, when Dr. George Murray read his paper in the Section of Therapeutics of the British Medical Association, at Bournemouth, entitled "Note on the Treatment of Myxædema by Hypodermic Injections of an Extract of the Thyroid Gland of a Sheep," no treatment was known that could be said to have anything but the slightest influence on this slowly progressive disease, much less cure it. Since Dr. Murray's valuable suggestion, however, I think we may say that we now have in our possession a substance which can produce a greater change in persons suffering from myxædema than is the case with any single drug or any other known disease.

During the time above-mentioned most of the preparations in the pharmacopœia, as well as others not contained therein, had been tried with a singularly unfavourable result. There was only one drug known that appeared to exercise any notable influence for the better. This was jaborandi.

Of the 65 out of the 109 cases of myxædema reported on by the Committee of the Clinical Society§ in which the form of treatment adopted was specified, this was the only drug mentioned that seemed to be followed by a slight improvement. It was made use of in eighteen of the cases. This result was the same as that which has since been observed, and the result was similar in a patient I had under my care in Colney Hatch Asylum|| in the early part of 1892, where she had been an

* These include 40 cases referred to at the Edinburgh Med.-Chir. Soc. on February 15th and 16th, 1893, but not the 50 cases which were then mentioned as known to exist about the neighbourhoods of Edinburgh and Dundee.

† "On a Cretinoid State supervening in Adult Life in Women," Clin. Soc. of London, 1873.

‡ "Ord. Medico-Chir. Trans.," Vol. lxi., p. 57, 1877.

§ "Report of a Committee of the Clinical Society of London to investigate the subject of Myxædema," 1888.

|| Case reported in "The Journal of Path. and Bact.," No. 2, 1892.

inmate over seven years. Although a slight improvement at times appeared to follow the administration of jaborandi, it was only very transitory, with but a slight noticeable change either in the bodily or mental symptoms, and the patient rapidly relapsed into her former condition.

Myxœdema is naturally a very chronic disease, in which periods of abatement are wont to occur, and, as is well known, myxœdematous patients under no special treatment vary greatly from time to time, but especially so with change of temperature and the season of the year; but although they feel in better health and are more active when the weather is warm, they never lose the characteristic facial aspect, although it may to a slight degree diminish. I have never heard of a patient who has so far recovered that it has been impossible to diagnose the case as one of myxœdema. They are always worse in the winter months, and it is then that death almost invariably takes place. Some of the improvement that has been said to occur after the use of jaborandi may therefore depend on the patient's surroundings, and it should be stated in which months this has taken place—a point which has not always been noted, and has, therefore, tended to somewhat mislead as to the benefit derived from this medicine.

Dr William Ord* at one time went so far as to state that in a few cases "under the prolonged use of jaborandi the signs of myxœdema have almost disappeared." But even this is by no means the rule, and only the other day Dr. Ord remarked at the Clinical Society† that "two years ago the disease was regarded as incurable."

The Committee appointed by the Clinical Society in their classical work on myxœdema already referred to, in their general summary of treatment, say:—"The use of tonics, particularly of iron, quinine, and hypophosphites (meeting the obvious debility belonging to the disease) has been adopted with a certain amount of temporary success. Having regard to the defective action of the skin, Jaborandi and pilocarpin have in many cases been administered, and, when administered over long periods, have appeared to exercise much beneficial influence. Nitro-glycerine has been used in a very limited number of cases with fairly good results. An important element in the treatment is the maintenance of warmth in the surrounding atmosphere, and the regular removal of patients during the winter to southern climates has appeared to mitigate

* Quain's "Dictionary of Medicine," 1883, p. 1016.

† "Brit. Med. Journ.," February 4th, 1893, p. 252.

their sufferings and to prolong their tenure of life.”* On another page† they enter more fully into the results reported of individual drugs.

Other drugs appear to be of even less value, and the same remarks apply as those just made with regard to jaborandi. Of the drugs which have had special attention called to them and been stated at various times to have been used beneficially may be mentioned nux vomica, strychnia, arsenic and iron, and nitro-glycerine, by the use of which drugs, when combined with careful diet, baths, and massage, Sir Andrew Clark “regards the disease as fairly curable.”‡ This is a vague term, and few would hold that there is even a “temporary cure” by these means.§ There are few illustrations on record. Dr. McCall Anderson, of Glasgow, has lately published a case || of a female, 20 years of age, with myxœdema of one year duration. The treatment consisted of taking arsenic and strychnine internally with a shampoo daily for half-an-hour, and an occasional vapour bath, in addition to which every now and then she had a subcutaneous injection of pilocarpine, gr. $\frac{1}{4}$, and a hot electric bath for half-an-hour at a time. A change for the better commenced after ten days, and in three months’ time “great improvement was manifest.” This, of course was an early case; the mind was not impaired. In another case, of longer duration, which he publishes at the same time, similar treatment produced no result after continuation for two months; it was then combined with the administration of thyroid juice, and was followed by marked improvement. I shall, however, refer to this case again.

Dr. A. Morison, at a meeting of the Pathological Society on October 18, said “he had seen a great benefit follow systematic

* “Myxœdema Report,” p. 34.

† This is as follows:—“Jaborandi in 12 and pilocarpin in six. Of these 18, 11 improved. In three improvement was great, and in one of these hot-air baths were also used. In five no improvement; in two results not stated. Nitro-glycerine in three. Marked temporary improvement in one, slight improvement in one, no effect in one. Iron, quinine, and sulphur baths caused almost entire disappearance of œdema in one. Iodide of potassium in large doses temporarily relieved occipital headache in one. Induced current in two. Improvement in one. Galvanism to the spine probably of use in one. Iron beneficial in four, but in a much larger proportion no good resulted. Strychnia or nux vomica in 10. Improvement in two. Quinine, hydrobromic acid, phosphorus, cod-liver oil, cold baths, milk diet, and ‘tonics’ apparently useless.” The above are extracted from 65 answers received. See page 22 of report.

‡ Quain’s “Dictionary of Medicine,” 1883.

§ Dr. Affleck (“Edin. Med. Jour.,” May, 1893, p. 1050) has, however, known great improvement to follow this treatment.

|| “The Practitioner,” January, 1893.

massage; the patient improved for a time, but ultimately the massage lost its apparent effect and a fatal result ensued.* Other observers have noted precisely the same fact.

Dr. William Dyson, in recording a case of myxœdema in a male who was under his care at the Sheffield General Infirmary,† writes, "On the whole the drug treatment did not appear to do much good; I was inclined to attribute this general improvement to the warmth, excellent nursing, and good wholesome food which he received." A photograph reproduced, which was taken when he was at his best, shows, however, an undoubted well-marked case of myxœdema. With this remark of Dr. Dyson many will agree.

Dr. Hector Mackenzie, lately in a lecture on the recent advances in the treatment of myxœdema, when speaking of a certain case that he has since treated by thyroid extract, said: "During the two years and a half we had been watching the patient the disease had been slowly, but steadily, progressing. Whether our treatment by jaborandi, tonics, rest in bed, massage, and the other means we had employed had prevented a more rapid progress we cannot say. Certainly, she had been temporarily benefited a little by her two admissions, and she herself had some faith in the efficacy of the medicines prescribed for her."‡

Dr. Hermon Gordinier read a paper last year before the Medical Society of New York, in which he said of a female with myxœdema of two years' duration, "The patient has been under my care for over a year, and I can see but little improvement in her condition. She thought at one time that pilocarpine did her good."§

The uselessness of a "tonic treatment" has been shown again and again. Dr. Benson|| records a case of eight years' duration in which this treatment was persisted in for five months "without any effects." The thyroid extract was given by the mouth, and in less than a month she became a "new creature."

We must conclude, therefore, that by such treatment little could be hoped for beyond producing a very temporary benefit by improving the appetite and increasing the action of the skin.

* "Lancet," October 22, 1892.

† "Sheffield Medical Journal," No. 1, October, 1892.

‡ "Lancet," January 21, 1893.

§ "Medical Reprints," September 15, 1892. "Report of Two Cases of Myxœdema with one Autopsy."

|| "Brit. Med. Journ.," April 15, 1893, p. 795.

The Treatment of Myxœdema by Thyroid Grafting.

So much for the older methods of treatment. I now pass on to the more modern form, viz., the treatment of myxœdema by means of the thyroid gland.

First, I will deal with the subject in its primary or surgical aspect, viz., thyroid grafting, and afterwards with the modifications and improvements that have since been introduced, by which the treatment has been simplified, rendered more efficient, and at the same time taken out of the hands of the surgeon and given into those of a larger class of men—the physicians and general practitioners.

It was in February, 1890, that Prof. Victor Horsley suggested the transplantation of the thyroid of a healthy sheep into persons affected with myxœdema, with the view to arresting the progress of the disease, basing his arguments on the experiments of Schiff, Eiselsberg, and his own.* These experiments went to prove that, when the myxœdematous process (cachexia strumipriva) developed in an animal deprived of its thyroid gland, the animal could be kept alive and in good health by the transplantation of the same gland from another healthy animal.

Cases are often recorded in the medical journals immediately after an operation or at the commencement of a new form of treatment, and we hear no more about them. Some of these are exceedingly interesting, and we should like to know how the case progressed and what was the final result of the treatment recommended. A case in point is that of thyroid grafting for myxœdema. Now that the subject of myxœdema is attracting so much attention, it would be interesting to know what has become of those patients who have been treated by this method, whether they show any permanent improvement, and how this mode of treatment compares with that of the subcutaneous injection and ingestion of the thyroid extract in this disease.

With this object I have collected together all the cases of which I know, and, where possible, have obtained further information concerning them. Let us see what have been the results so far.

M. Lannelongue, of Paris,† appears to have been the first

* "Note on a Possible Means of Arresting the Progress of Myxœdema, Cachexia Strumipriva, and Allied Diseases." "Brit. Med. Journ.," Feb. 8, 1890, p. 287.

† "Lancet," March 22, 1890, p. 665.

to carry out the operation. He reported his case to the Biological Society on March 7th, 1890, immediately after the patient had recovered from the operation and before any change in the patient's condition had occurred. No further information concerning this patient has been reported in the English journals, and we do not know if any improvement followed the operation. On September 3rd, 1890, M. Walther* performed a similar operation on a woman, 40 years of age, and reported the case to the Medical Society of Paris, the following November: slight improvement with less characteristic appearance of myxœdema was noted. Here again we are left in ignorance as to a later result. In the meantime Drs. Battencourt and Serrano, of Lisbon, reported on the subject of thyroid grafting for myxœdema.† Their case is briefly as follows:—A female, æt. 36, had myxœdema for several years with apparent absence of the thyroid. These observers introduced into the subcutaneous tissue of the inframammary region on each side the half of a thyroid gland of a sheep. An immediate amelioration was produced, which was first marked by an elevation of the temperature. The red blood corpuscles rapidly increased in one month from 2,442,000 to 4,447,000. The patient's movements became more easy, her speech less affected, and perspiration returned. The œdema went down, and her weight diminished from 239 lbs. to 227 $\frac{3}{4}$ lbs. Menstruation now lasted only four days, whereas, previously, it was many weeks. It is to be noted that Battencourt and Serrano state, "The fact that amelioration commenced so soon seems to indicate to us that the thyroid tissue was absorbed."‡ This account, which appears to have been written about a month after the operation, is the latest to hand.

Mr. Hurry Fenwick§ first performed the operation in this country. It was on a woman, and was carried out at the request of Dr. Sansom. No improvement followed, for "the disease was too advanced to admit of any satisfactory inference being drawn as to the efficacy of the method." The case was fatal on the fifth day.

On April 2, 1891, Dr. W. J. Collins transplanted the thyroid gland of a sheep into a patient at the Temperance Hospital at the suggestion of Dr. Ridge.|| The patient was a woman

* "Lancet," Nov. 29, 1890, p. 1192.

† "La Semaine Médicale," Aug. 13, 1890.

‡ For the translation notes of this case, and from which the above is taken, I am indebted to my friend Dr. Boyce.

§ "Lancet," May 2, 1891, p. 1003; also "Brit. Med. Journ.," Oct. 10, 1891.

|| "The Medical Pioneer," Oct., 1892, and "Lancet," May 2, 1891, p. 1003.

aged 34. The symptoms, which commenced two years back, do not appear to have been advanced. Dr. Collins' latest remark on the case was in September, 1892. He says: "She pronounces herself in good health, is cheerful. Those who watched the patient most closely insist upon mental improvement having taken place, and there are not wanting more material points in which involuntary misconception is less probable."

Of the two remaining cases of thyroid grafting, that of Dr. Thomas Harris and Mr G. A. Wright was reported fully in the "*Lancet*."* The patient, a woman aged 48, who had shown signs of the disease for nine years, had, on April 4th, 1891, at the Manchester Royal Infirmary, part of the thyroid of a young monkey inserted beneath the breast. The operation was quickly followed by improvement in some respects, but in a few weeks the patient appears to have relapsed completely into her former state. She improved slightly again on returning to the Infirmary, a fact which the authors attribute to hospital diet and surroundings. Her speech remained quite unaffected. In reply to an inquiry as to the condition of the patient more recently, Mr. Wright, on October 18th, 1892, writes as follows: "The myxœdema case has not turned up lately, but when I saw her last she was much the same as before, though she thought herself better. Nothing further has been done so far as I know. My impression was that the stay in hospital improved her a good deal more than the thyroid grafting."

On the 2nd March, 1892, Dr. John Macpherson† showed a patient at a meeting of the Edinburgh Medico-Chirurgical Society on whom he had performed this operation on the 22nd October previously. The patient, who was an inmate of the Stirling District Asylum, was a woman, 39 years of age, with myxœdema of three years' standing. A remarkable mental and physical change followed rapidly on the operation, and appears to have continued for a time. On October 11th, 1892, Dr. Macpherson was good enough to write me: "My patient has quite recently been readmitted into this asylum. When formerly under my care she was melancholic, stuporose, and otherwise manifested the usual mental concomitants of myxœdema. On this occasion she is mildly maniacal, and she presents none of the mental or physical symptoms of myxœdema."

* "*Lancet*," April 9, 1892, p. 798.

† "*Edin. Med. Journ.*," May, 1892, and "*Lancet*," May 12, 1892, p. 609.

Writing again under date of May 11th, 1893 (just seven months later), he says: "The case is still under my care in this asylum. She is subject to slight recurring attacks of mania and melancholia, the latter, when it occurs, being characterized by mild stupor. Occasionally there appears on her cheeks the characteristic pink flush of myxœdema—the only symptom, if one accepts the mental disturbance as doubtful, of myxœdema. I am quite prepared to observe a relapse in her condition at any time. It suggests to my mind the possibility that there is just sufficient thyroid secretion being produced to prevent pathological symptoms, and that occasionally when the production falls below the necessary requirement of the system the mental symptoms make their appearance."

In this case, in which the myxœdema seems to have been more or less cured, there is raised the question as to the cause of the insanity, and this case would appear to make it the more difficult to explain the reason for the insanity that follows on myxœdema.

In addition to these cases, at a recent meeting of the Clinical Society of London, Dr. Ord said he had tried implantation of the thyroid gland with only temporary success.*

NOTE.—The operation of thyroid grafting for cretinism is commented on elsewhere. The results of Bircher ("Sammlung klinischen Vorträge," No. 357, 1890) and Kocher, obtained by thyroid grafting on the subjects of cachexia strumaprima, are not here referred to, as they form a slightly different class of cases.

From the above references it will be seen that regarding the ultimate effect of the treatment in the earliest cases, those operated on abroad, we are ignorant, and it is to be hoped that an endeavour will be made to trace them. Excluding Mr. Fenwick's case, there remain four cases of which we know something. Of these, two appear to have been followed by a more or less prolonged period of improvement, the others only very temporary. Of Dr. Macpherson's and Dr. Collins' cases there are points worth noting. In the first the insanity returned within a few months, and concerning the second one can read in Dr. Collins' words that signs of the disease are still present although the disease was never advanced.

On the whole, I think we may conclude, therefore, that at present there appear to be no advantages to be gained by the severer operation of grafting over the minor one of subcu-

* "Lancet," Feb. 4, 1893, p. 248.

taneous injection, or the simple injection of the thyroid principle; moreover, we cannot at present point to a collection of cases such as we now have with the latter where the treatment has been followed by such uniform results.

Historical Sketch of Recent Modifications in the Treatment of Myxœdema by Subcutaneous Injection and Ingestion of an Extract, etc., of the Thyroid Gland.

We now come to the more recent suggestion of Dr. George Murray, a pupil of Prof. Victor Horsley. Dr. Murray being struck with the rapid action that was recorded as following the operation of thyroid grafting concluded that this was due to the absorption of the thyroid juice that was still present in the piece of thyroid tissue at the time of implanting, as the interval was too short for the formation of either fresh secretion or new thyroid tissue. Working on this hypothesis, he prepared an extract of the fresh thyroid gland of a sheep by mincing the gland and extracting the principle with glycerine, and injecting this subcutaneously into a patient the subject of well-marked myxœdema. The result was astonishing, and he communicated it to the profession, as already stated, at Bournemouth, in July, 1891.

On the Continent, about the same time, Brown-Séquard and d'Arsonval are said* to have suggested, from the experimental results obtained on animals by Vassale and Gley, the probable utility of thyroid juice in myxœdematous persons if injected hypodermically. But they do not appear to have carried it into practical effect. Bouchard,† later, came to similar conclusions from his own experience.

Murray's paper appeared in the "British Medical Journal,"‡ and the treatment there proposed, of the subcutaneous injection of a glycerine extract of the thyroid gland of some animal, has since been carried out in a large number of cases, and the results obtained have been almost invariably as satisfactory and wonderful as those first recorded, in many cases even more so.

Up to the present time (May 18th), so far as I have been able to discover, there have been 100 cases published in which this treatment, or some modification of it, has been tried. About 40 of these were actually treated by the subcutaneous

* "Lancet," Jan. 21, 1893, p. 124.

† "Brit. Med. Journ." (Építome), Nov. 12, 1892, and "Arch. Gén. de Méd.," Oct., 1892.

‡ "Note on the Treatment of Myxœdema by Hypodermic Injections of an Extract of the Thyroid Gland of a Sheep." "Brit. Med. Journ.," Oct. 10, 1891.

injection of an extract in all respects similar to that used by Murray.*

A large number of the cases appeared originally in "The British Medical Journal," and the majority of those elsewhere reported, may be found referred to in that journal.† With the exception of two cases they have all been followed by a remarkable improvement in the condition of the patients. The two exceptions were those referred to by Dr. Michell Clarke, at the meeting of the British Medical Association at Nottingham.‡ No details are given, but it is said that "no change resulted from the injections," a fact exceedingly strange when we consider that every other observer who has carried out this treatment has obtained so marked an alteration in the appearance of the patients when the subject of myxœdema. One, therefore, cannot help thinking that some discrepancy must have occurred in the diagnoses or mode of treatment adopted by Dr. Clarke.

Murray's method was a much simpler one than that of implantation, and the risks of a large operation were done away with; at the same time the immediate results were more satisfactory, and the remote were equally good or better.

The next real advance made in the treatment was that proposed by Dr. Hector Mackenzie.§ On July 27th, 1892, being unable at the time to obtain the extract for injection, he commenced to feed a patient at the Royal Free Hospital on fresh thyroid glands. As an equally good result followed this mode of treatment it was continued, and in less than three months the disease was scarcely recognizable. Dr. Mackenzie claims for this method that it has advantages over the subcutaneous mode in that it is more readily obtainable, can be more easily carried out, and is free from many of the risks and other disadvantages attendant on the injection of the fluid extract. The thyroids in this case were pounded and given in a little brandy. He showed that it was sufficient to let the patient eat the thyroid or swallow an extract made with glycerine.

* I have been informed that some time back Messrs. Brady and Martin alone were supplying the extract for the use of 100 cases, so there are probably now considerably beyond that number of cases undergoing the treatment.

† The earlier cases have also been tabulated by Dr. Robert A. Lundie on much the same lines as that now presented, and appear with his paper, "The Treatment of Myxœdema," which he read before the Edin. Med. Chir. Soc., and are printed in "The Edin. Med. Journ.," May, 1893.

‡ "Brit. Med. Journ.," August 27th, 1892.

§ "A Case of Myxœdema Treated with Great Benefit by Feeding with Fresh Thyroid Glands," "Brit. Med. Journ.," October 29th, 1892.

At the same time as Dr. Mackenzie reports his case, Dr. E. L. Fox, of Plymouth, reports another case of myxœdema,* whom he had treated at first by the injection of a glycerine thyroid extract, and afterwards by lightly fried and minced glands taken in currant jelly. This was followed by a similar result. The treatment was begun on June 2nd, 1892.

Professor Howitz, of Copenhagen,† however, had already carried out this principle, for on March 22nd, 1892, he commenced feeding a patient with the thyroid gland of calves, and he made known his results on July 6th. He, too, adopted this method on the principle that it was more accessible in daily practice, and was a safer form of administering the remedy.

At a meeting of the Clinical Society of London on January 27, 1893, Dr. Arthur Davies showed a case ‡ in the treatment of whom he had employed a further difference in detail. This was the administration by the mouth of a powdered extract obtained by extracting the active principle with glycerine and reducing the resulting extract to a powder by heat. It was Dr. Mackenzie who first suggested its preparation, which was carried out by Mr. Edmund White, pharmacist to St. Thomas's Hospital.

These various methods, which differ only in detail, have all been since tried on a number of cases, and they differ little in their result. There is invariably the same remarkable improvement and cure recorded. The extract has been given in a variety of vehicles, such as brandy, beef-tea, water, milk, jelly, with pepper and salt, etc., and the gland has been first subjected to a variable amount of cooking, with the object of rendering it more palatable.

It remains for me to mention one more modification that has been introduced by Vermehren, of Copenhagen.§ He records a case of sporadic cretinism whom he treated with success by the administration of "thyroidin." This substance is obtained by the precipitation with alcohol from a glycerine extract of the finely minced gland, and takes the form of a greyish powder. This substance is, of course, equally applicable to cases of myxœdema, and probably differs little, if at all, from the powder used by Davies.

* "A Case of Myxœdema Treated by taking Extract of Thyroid by the Mouth." *"Brit. Med. Journ.,"* October 29th, 1892.

† *"Brit. Med. Journ.,"* February 4th, 1893, p. 266, and *"Semaine Méd.,"* 8th Fév., 1893.

‡ *"Brit. Med. Journ."* and *"Lancet,"* Feb. 4, 1893.

§ *"Brit. Med. Journ."* (Epitome), April 15, 1893. (*"Deut. Med. Woch.,"* March 16, 1893).

With all these various minor modifications there still remains the one disappointing fact that as soon as the treatment is discontinued the patient relapses, so that in a few weeks the patient gradually passes back into the condition of myxœdema from which he has only too lately been resuscitated. So long as the drug is in use, whether it be by hypodermic injection or the ingestion of the gland or a preparation therefrom, so long the improvement continues ; but let it be dropped for a time, then without fail do we see only too soon the reappearance of the disease. But it has now been proved that only a small dose is needed to maintain the condition, and that not at very frequent intervals, and the taking of an occasional dose is surely a hardship not hard to bear even were it necessary for the remainder of the patient's life. Although at present there are wanting real indications of a permanent cure, it would seem that after a considerable period the dose may be reduced to a mere trifle, and who knows but that it may finally be dispensed with altogether !*

(To be continued.)

General Paralysis Occurring about the Period of Puberty.

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We are in the habit of regarding general paralysis as in the main a disease of the prime of life—of a time when the fresh vigour of youth has subsided, but before the first touch of decay has laid its hand upon the organism ; when the mental faculties are strained to the utmost in the pursuit of wealth or pleasure, or social distinction, or in the keen struggle for existence entailed upon so many of our race. We are not indeed unaccustomed to meet with cases of this disease occurring both before and after this epoch of life, but the association of general paralysis with the period of childhood and puberty has hitherto been a very unfamiliar idea. Nevertheless, scattered cases have from time to time been published which tend to show that the period of life which appears to offer most exemption from all the ordinary causes of the disease may still claim its victims, and that at, or

* Such, too, are the views of Dr. Robert Lundie, as contained in an interesting and popular article, "A New Departure in Medical Treatment," which he has lately contributed to "Chambers's Journal," May 6, 1893.

about, the period of puberty cases may occur which, both clinically and pathologically, appear incapable of separation from the ordinary forms of the disease with which we are so familiar.

So far back as 1877 Dr. Clouston published a case of general paralysis occurring in a boy aged 16; and in 1881 Dr. Turnbull recorded another one, also in a boy, which started at the still earlier age of 12; whilst in 1883 I myself reported a case in a girl commencing at the age of 15. References to a few other juvenile cases reported by Régis and others will be found in Dr. Mickle's invaluable work on general paralysis.

Attention has, however, more particularly of late been directed to this subject by the publication of Dr. Clouston's work on the "*Neuroses of Development*," in which two fresh cases are fully recorded under the title of "*Developmental General Paralysis*," both in girls, the disease in each case commencing about the age of 15. Previous, however, to the appearance of Dr. Clouston's work I had had two more cases of this description under my care, and in March, 1891, I had the pleasure of calling Dr. Clifford Allbutt's attention to one of them in the wards of Rainhill Asylum, and Dr. Allbutt has alluded to these cases in his article on "*Insanity in Children*" in Dr. Hack Tuke's "*Dictionary of Psychological Medicine*." Recently another case has been reported by Charcot and Dutil in a boy, which commenced at the age of 14.

I may also in this connection allude to a paper by Dr. Shuttleworth "*On Idiocy and Imbecility due to Inherited Syphilis*." It is true that Dr. Shuttleworth does not class any of his cases as general paralytics, nor, indeed, allude to this subject in connection with his paper, inclining to the belief, expressed by Heubner, that the "*progressive pathological change*" observed in his cases was to be referred to affections of the cerebral arteries, the calibre of which, having become narrowed by endo-arteritis, more or less cerebral atrophy was produced. But Dr. Shuttleworth, in a communication on the subject with which he has been good enough to favour me, tells me that cases I., III., and IV., described in his paper, were very like Dr. Clouston's cases which he saw at Morningside; so that the possibility of some of Dr. Shuttleworth's cases being really examples of juvenile general paralysis appears open to discussion.

I will now give a short account of the two cases already

alluded to which I have recently had under my own care, and will then briefly summarize the leading features of these and of the other published cases referred to.

CASE I.—M. E. M., girl, aged 15, was admitted into Rainhill Asylum on September 19th, 1888. Her parents were living, healthy, and temperate, the father being fifty years of age and the mother forty-two, and they had been married eighteen years. Patient was the second child in the family, and she was one of three survivors out of a total of thirteen pregnancies, eight of which were females and five males; of the eight female pregnancies patient was the only survivor; two of the others were miscarriages at five months, two were stillborn, one (an eight months child) died two weeks after birth, and the other two died aged three and a half years and seven years respectively of scarlatina. Of the five male pregnancies, one died aged five weeks in a fit, one aged two years of some cause unknown, and another, aged two and a half years, of scarlatina; the other two were living. Thus out of the total number of 13 pregnancies no less than six were either miscarriages, still-births, or died within a few weeks of birth—a history certainly suggestive of syphilis, though no other evidence of this disease was forthcoming. There was no history of nervous disease in the family, nor indeed anything worthy of special note.

Patient herself was said to have been a bright child until eleven years of age, and had passed the third standard at school. At this time she was running one day in the street when she slipped and fell, striking her head violently on the kerbstone: she was unconscious for two hours, and was several days in bed with headache. Some months after this she appears to have developed some weakness of the limbs, for which she was treated in the Liverpool Royal Infirmary. About a year from the accident, patient being then twelve years of age, it was noticed that she was getting dull and losing her memory, and from that time her mind appears to have gradually faded away, though the downward progress had been more rapid during the few months preceding admission. During the three or four years previous to admission she had had several falls apparently as the result of paresis of her limbs, and on one occasion fell down a whole flight of steps and had convulsions all night afterwards. Possibly some of these falls were really examples of paralytic “seizures.”

The facts certified on admission were:—

Her intelligence is very defective. She answers “I don’t know” to all questions. Her powers of attention and understanding are deficient. She is quite unable to look after herself. She is inattentive to the calls of nature, and occasionally noisy.

When admitted, though fifteen years of age, she was described as a well-developed *child*, and the signs of puberty appear to have been

but slightly marked, though her mammæ were partially developed. She had never menstruated. Her pupils were slightly dilated and of normal reaction. Her viscera were sound. Mentally her condition was one of considerable dementia. She was quiet and tractable for the most part, and sat quietly most of the day taking no interest in her surroundings; when touched, however, she cried and seemed frightened. She had much loss of memory, could give scarcely any account of herself, and could only be got to answer correctly the most simple questions. She was wet and dirty in her habits. She remained much in this condition for about three months, when, at the urgent request of her mother, she was sent out to her care. Five months later, viz., in May, 1889, she was readmitted, and in the interval the disease had made rapid progress. She was now a complete wreck, both mentally and physically. She was thin and haggard, and so feeble that she could not stand unsupported. Her mind was a blank; she could give no particulars about herself and could not even tell her own name; she seemed, indeed, to understand nothing of what was said to her. She continually moved to and fro in her chair, uttering a crowing, meaningless laugh, and when touched she cried loudly and continuously. Her tongue was tremulous, as also were her lips, and her speech was hesitating and ejaculatory. She was wet and dirty.

From this time her course was rapidly downward. She became so paralyzed that she was shortly confined to her bed, where she remained until her death, and her limbs soon became strongly contracted in flexion. She screamed a good deal at times, but showed no sign of intelligence. All her evacuations were passed under her. She became excessively emaciated, literally being mere skin and bone, and bedsores developed on all points exposed to pressure. She finally died on August 31st, 1889, being at that time 16 years of age. No convulsions were noted at any time during the period she was under observation.

The patient having died during my absence from home, I unfortunately did not see the autopsy, but the following is the record of it (19 hours after death) :—

Body extremely emaciated, lower limbs rigidly contracted in flexion. Sores on both elbows, trochanters, sacrum, and heels, inside of thighs, backs of hands, shoulders, and dorsum of feet.

Cranium.—Skull cap thin and very dense, not adherent to dura. Superior longitudinal sinus empty. Great excess of subdural fluid, about 450 c.c. Encephalon, 885 grammes. Right hemisphere, 348 grammes. Left hemisphere, 290 grammes (both unstripped). Cerebellum, 102. Pons, 13. Medulla, 5½.

Great and general opacity of arachnoid, the white lining along the course of the vessels being a prominent feature. Vessels prominent, but no general congestion. Large excess of subarachnoid fluid.

Pia mater and arachnoid stripped readily over the whole of the left hemisphere, except along the superior temporo sphenoidal convolution and the angular gyrus; here extensive decortication occurred, though the adhesion was very slight, the cortex being extremely soft. Great and general wasting of gyri. Ventricles enormously dilated, the cornua especially so. Slight roughening of floor of fourth ventricle. Great wasting of cortex, the grey matter being reduced in thickness to about $\frac{1}{3}$ normal. Striation for the most part completely absent. White matter very pale, almost no puncta cruenta. Basal ganglia dark-coloured and softish. Brain as a whole firm, though surface layers very soft. Cerebellum rather pale and firm. No macroscopic lesion of pons or medulla, which were fairly firm.

Thorax.—Right lung, 6oz.; left, $4\frac{1}{2}$ oz. Both dry and partially collapsed. *Heart*, 3oz., soft and flabby, but otherwise normal. *Pleura* and *pericardium* quite normal.

Abdomen.—Liver, $23\frac{1}{2}$ oz., normal. Right kidney, 2oz.; left, $1\frac{3}{4}$ oz., both normal. *Spleen*, $1\frac{3}{4}$ oz., soft, dark, and diffuent. *Bladder* empty.

I will now proceed to describe the next case.

CASE II.—C. K., girl, aged 15, admitted November 17th, 1888. Her friends neglected her and did not visit her, and the history was only obtained with considerable difficulty upwards of two years after her admission.

Father living, aged 50; he was a heavy drinker, but no further information could be obtained about him; her mother died at 39 years of age, of phthisis; she was 18 years of age at the time of her marriage. There were seven children born as the result of the marriage.

1. Girl, aged 24 (who gave these particulars of the history); she had been married three years, and had had one child stillborn at seven months.

2, 3, and 4. All died in infancy of convulsions and teething, etc.

5. Patient.

6. Boy, living, aged 14.

7. Boy, living, aged 12.

The sister stated that patient was a bright child, and was in the fourth standard at school when between 10 and 11 years of age. Four years before admission, viz., in 1884, she one day fell down stairs and hurt her head and leg, for which injury she was treated in the Northern Hospital, Liverpool, for two months, the entry in the books of the hospital stating that she suffered from "osteitis of tibia." Her mother then died, and her father being a great drunkard she was much neglected, and depended on neighbours for chance meals. She became thin and weak, and it was thought she was going into a consumption. Six months before admission she was noticed by her sister to be "queer" at times, and she

became subject to "faints," from which she soon recovered. The medical certificate upon which she was admitted stated that "she sits in one position all day, takes no interest in her surroundings or future prospects, answers questions very unwillingly and stupidly. Her intellectual powers and memory are deficient. She is unable to look after herself; does not go to her food unless fed."

When admitted she was noted to be a girl of fair physical development, but her mammae were small, and she did not display any signs of puberty. She had never menstruated. Viscera sound. Pupils normal. No noticeable paralysis, but appeared awkward on her feet, and tripped over any irregularities on the floor. Knee jerks very brisk. Plantar reflexes normal. Mentally she was in a dull, listless state, with a tinge of depression, taking no interest in her surroundings, although she appeared to understand something of what was going on around her, and when roused could be got to answer a few simple questions, giving her age correctly, for instance; very few particulars about her family could, however, be elicited from her, and her memory was evidently at that time considerably impaired. She was clean in habits. She remained in this sort of semi-stuporose condition for many months, capable of being roused to answer questions, or at times to laugh at trifles, but sinking back again at once into her usual state. Then, rather more than a year after admission, she had several well-marked epileptiform convulsions, and soon after this, viz., in March, 1890, she was noted to be steadily growing worse, her mental condition being one of slowly progressive dementia. She was also at that time becoming unsteady on her legs, and dragged her feet when walking. Sensation appeared normal, but her mind was too dull for reliable data of this kind to be ascertained. She was already beginning to lose flesh. A few months after this, owing to the advance of the paralysis, she was confined to her bed, and her condition assumed the characteristics which persisted for nearly two years—up to the time of her death—with very little change. She was completely paralyzed, and lay huddled up in bed with all her limbs rigidly contracted in flexion, nor could these be straightened by any reasonable force; knee jerks unattainable owing to the rigid contracture. The excitability of the muscles was found about equally diminished to all forms of electrical stimulation. She was wet and dirty. She gradually developed small bedsores over points of pressure—elbows, hips, etc.—but these did not enlarge to any size, and showed a tendency to heal as time went on. Reflex closure of the eyelids when the hand was brought near the face was very marked. At the commencement of her bedridden period she frequently repeated words and syllables spoken in her hearing in an automatic manner, but latterly she was very silent, scarcely uttering a sound, except to cry when disturbed. She was quite fatuous, displaying no sign of intelligence. She ground her teeth for hours together after the

fashion of the most typical general paralytic. For some time before her death she had not sufficient intelligence to protrude her tongue, but at an early period this was markedly tremulous as a whole when protruded, and the tremor spread to the muscles of the lips and face; her speech also was distinctly quavering. She was greatly emaciated. Pupils much dilated; right 7 m.m., left 7.5; sluggish, but contracted to strong light. Optic discs normal. As she lay in bed, with her small wasted limbs and features, she had all the appearance of a child of nine or ten years of age, instead of being, as she then was, in her 19th year. There were no signs of menstruation all the time she was in the asylum. She died on March 3rd, 1892.

*Autopsy** (seven hours after death).—Body much emaciated. Great contracture of all the limbs.

Cranium.—Skull cap: thickness and density slightly increased. Slight adhesion of dura to bone. Sinuses moderately full. Inner surface of dura mater coated with an old laminated membrane, which covered both hemispheres, extending down on each side as far as the 1st temporal gyrus, backwards to the tip of the occipital lobe, and forwards to the tip of the frontal lobes; it was evidently of old date, and was adherent to the dura, though it could readily be detached from it. Near its margin it was transparent, of a straw colour, and extremely thin, but towards the vertex of the skull it rapidly increased in thickness, and measured here from 1.5 m.m. to 2 m.m. thick. It appeared quite free from hæmorrhage, but was plentifully supplied with blood vessels. In its thicker parts it was very distinctly laminated, opaque, and of a brownish colour. Inner surface of dura smooth and shining when the membrane was removed. Great excess of almost clear colourless serum in subdural space, appearing not only to distend the dura mater, but to float up the brain, as when the fluid was drained off the brain sank to the bottom of the cranial cavity, and it became evident that it did not fill more than $\frac{1}{2}$ to $\frac{2}{3}$ of the cranial space. The *encephalon* as a whole only weighed 720 grammes. Arachnoid thickened, and showing widespread opacity. Marked adhesion between frontal lobes and across Sylvian fissures, the adhesions showing themselves as thick bands of membrane bridging across the fissures. Slight general thickening, and marked general hyperæmia of pia mater. No decortication on stripping, but the arachnoid showed a tendency to separate from the pia, leaving portions of this behind on the cortex. Great excess of serum in subarachnoid space. Convolutions of cerebrum immensely wasted, the sulci widely gaping, these conditions being particularly marked on the inner aspect of the right hemisphere; the wasting was less marked in the occipital lobes than elsewhere. Surface of convolutions red in colour.

* Pathological notes by Dr. Wynne.

Right hemisphere (unstripped) weighed 287 grammes; (stripped), 265. Left hemisphere (unstripped), 290 grammes.

Cerebellum, 91 grammes. *Pons*, 11. *Medulla oblongata*, 7.

Cortex purplish red in all parts, of firm consistence and increased vascularity; depth much diminished, and striation very indistinct. White matter slightly yellowish in colour. Ventricles much dilated, containing clear fluid.

Ependyma not granular. Corpora striata, optic thalami, corpus callosum and fornix all unusually small and rather too firm.

Cerebellum; cortex small, but not out of proportion to size of organ. *Pons* small.

Medulla oblongata.—Fourth ventricle slightly dilated; ependyma a little granular at calamus scriptorius.

Spinal Cord.—Smaller and firmer than usual. Membranes hyperæmic but not thickened.

Spinal Nerves.—Brachial plexus, great sciatic, and anterior tibials small, but not out of proportion to muscular development; appeared normal.

Microscopical Examination.—Sections from superior frontal and from parietal and occipital lobes (fresh condition) all showed a fine spider-cell formation, which passed deep into the cortex; the nerve cells were much degenerated and distorted, apparently by contraction of the connective tissue elements. Vessels thickened and showed proliferation of the nuclei. The spinal cord showed small patches of sclerosis in the posterior columns in both cervical and dorsal regions. There was marked sclerosis of the posterior part of the right lateral column throughout the cord, and in the cervical region of the left lateral column also; there was also a small patch of sclerosis of this left lateral tract in the dorsal region, but none at all in the lumbar.

The peripheral nerves above noted were examined fresh and after hardening in osmic acid, and staining with picrocarmine. No segmentation of the myelin and no nuclear proliferation were detected; the nerve fibres appeared quite healthy, and in teasing out no undue roughness or increase of connective tissue was observed.

Thorax.—Right pleura; local empyema at base. *Right Lung*, 11oz.; upper lobe in a condition of complete pneumonic consolidation. *Left Lung*, 6oz. At apex scars of old tubercle. Small bronchi dilated.

Heart.—Weight 5oz., normal.

Abdomen.—*Liver*, 23oz., congested; capsule not thickened; no sears.

Spleen.—2oz., pale and firm.

Kidneys.—Right, 3oz. Left, 3oz.; healthy.

Other organs healthy.

No evidence of syphilis.

If now we add to the above two cases the six others referred to at the outset of this paper, we get a total of eight cases in which the disease commenced at or about the period of puberty, which may be briefly subjected to analysis. These cases include three reported by Clouston, one by Turnbull, one by Charcot and Dutil, and three by myself.* I have only seen an abstract of the case published by Charcot and Dutil. It may be premised that of the eight cases two were living at the time the cases were reported; in the remaining six the disease had proved fatal, and the diagnosis had been confirmed by post-mortem examination.

1. The age of the youngest patient at the time the disease commenced was 12 years, that of the oldest 16, the average of the whole being 14. It is, of course, impossible to state with precise exactitude the time at which the disease made its first appearance, and probably, if anything, the patients were a little younger than the above figures indicate.

2. The duration of the disease shows a tendency to be prolonged. Of the six completed cases the duration of the shortest case was three years, of the longest six, the average of the whole being $4\frac{1}{2}$ years, which is certainly rather a longer average duration than that of ordinary adult general paralysis. Here, again, these figures probably understate the actual duration.

3. The high proportion of females is a noteworthy feature, five of the cases having been girls and only three boys. Of course from such a small number of cases one must be careful about drawing general conclusions, but it is unlikely that the above proportion is altogether accidental. Having regard to the large preponderance of adult male general paralytics over female, it would appear that in these juvenile cases the disparity between the sexes tends to disappear, the incidence of the disease being more equally divided between them.

4. The mental state is of interest, as indicating an immense preponderance of the demented type of general paralysis. In only one case (one of Clouston's) were any grandiose ideas present, and these only in a slight degree; in all the other cases the condition appears to have been one of dementia, from first to last; this was very marked in my own cases, a gradual, almost imperceptible failure of mental

* I have not been able to include in this summary all the cases referred to by Mickle, as details of the cases are not given by him, and I have been unable to consult the original papers.

power having been noticed from the first. The cases, indeed, seem to have partaken more of the degenerative than the sthenic type of general paralysis.

5. It seems to be the rule either that the signs of puberty do not appear at all, or if they have commenced that they are arrested, and tend to disappear as the disease progresses, menstruation in the females being absent. And *pari passu* with the above, and, indeed, as a part of it goes, arrest of the bodily development generally. This has been especially remarked upon by Clouston, and in my own cases the child-like appearance of the patients when the disease was well advanced was a very striking feature, although the last two patients at the time of death were aged 16 and 18 years respectively.

6. The excessive emaciation exhibited by both of my cases was a very striking feature.

7. The extreme atrophy presented by the brains was also very noteworthy. In the case of M. E. M. the brain, with membranes adherent, immediately after removal from the cranial cavity weighed 885 grammes, whilst in the case of C. K. the brain in similar condition weighed only 720 grammes; this, it must be remembered, was from a person then in her 19th year, who was not microcephalic (her head circumference was 20 inches).

8. On the question of ætiology hereditary tendency was distinctly traced in four of the cases, and in the fifth it probably existed (in Turnbull's case the father of the patient was himself a general paralytic), whilst in two others there was marked alcoholism in one or both parents, so that we may fairly consider that there was a neuropathic taint in $\frac{7}{8}$ of the cases—an immensely higher proportion than obtains in ordinary adult general paralysis.

Next, perhaps, to heredity, syphilis appears to be a cause. In both of Clouston's last two cases the syphilitic history was well marked, and both patients exhibited in their persons evidence of congenital syphilis. In one of my cases (M. E. M.) a syphilitic taint was suggested by the history, though the evidence was not conclusive. I have already referred to the possibility of some of Dr. Shuttleworth's syphilitic imbeciles being examples of juvenile general paralysis.

The only other factor which seems to stand out at all prominently is traumatism. Both of my latter two cases had had severe falls on the head, and the disease was said to

have dated from about the period of the accident. It is, of course, necessary to be cautious in accepting this as an ætiological factor, for apart from the tendency of parents to assign an injury as the exciting cause of mental disease, there is the further fallacy that the fall may have been occasioned by a paralytic seizure, which may itself have been the first symptom of the disease. In both my cases, however, the falls appear to have been of a severe character, and I am disposed to regard the injury as a factor in the production of the disease. I may also mention parental neglect as a contributing factor, which appears to have been operative in several of the cases.

I remarked at the outset that these juvenile cases of general paralysis occurred at a time of life which appeared to offer most exemption from all the ordinary causes of the disease. But here we are reminded that the above causes which appear to have been operative in the cases analyzed are also causes generally recognized as operative in adult general paralysis. Heredity, syphilis, traumatism are all regarded as causes of general paralysis, although the relative importance assigned to each by different authorities varies greatly. It might be inferred, indeed, that these causes were more potent when acting in early life, but in the immense number of mental and nervous disorders owning a neuropathic heredity how seldom do we meet with these juvenile cases of general paralysis; and whilst the congenitally syphilitic are fairly common, it seems very rare to meet with general paralysis amongst them, though possibly cases are more frequent than published records would seem to indicate. Dr. Clouston suggests that in these cases the strains of development at puberty may have the same effect as strains and undue outputs of energy in after life have in other cases in causing the disease. And possibly when an individual is strongly predisposed to nerve degeneration by reason of neuropathic heredity, or inherited syphilis, or other cause, there may not be sufficient energy left in the organism to enable it to respond to the great calls upon the nervous system which the onset of puberty entails, and hence a deadly decay may take the place of that development and higher life which is the normal outcome of this epoch.

But the period of adolescence is also by no means free from attacks of general paralysis. I give here in very brief outline the notes of two cases which have been under my

care, in each of which the disease commenced at the age of 18 and proved fatal at 20, which cases I have not included in the above analysis, since they do not in strictness come within the scope of the title of this paper.

John McC., aged 19. Admitted August 21, 1890. Both parents very intemperate. Patient was said to have been naturally weak-minded, but had been to school, and was in the 4th standard when he left. Fifteen months before admission he had a fall on the back of his head, and lay unconscious for four days in convulsions; was said never to have fully recovered his mind after this. When admitted he was in a condition of advanced dementia. He could not be got to answer a single question rationally, and did not appear to understand anything that was said to him; he was also excited and noisy, shouting and chattering, and muttering an incoherent jargon. Was wet and dirty. He died on February 27, 1891, and at the autopsy the brain was found to have typical general paralytic characters. It weighed 1,185 grammes. The arachnoid formed a dense white opaque watery membrane over nearly the whole of both hemispheres, and there was great congestion of the vessels of the pia mater. Great and pretty general decortication occurred on stripping the membranes. There was great wasting of the convolutions, atrophy and darkening of the cortex, and the ventricular floors were very granular.

Alice S., aged 20. Single. Admitted April 8th, 1889. Was formerly a barmaid, and had been deserted by her paramour, and since then had been on the streets. Was confined of a child in the workhouse two years before admission, after which she had an attack of mania, which was clearly the starting-point of general paralysis. When admitted she was in the last stage of the disease, quite fatuous, wet and dirty, could understand nothing, but cried out at intervals. Could not walk or stand. Tongue could not be fully protruded. Died two months after admission, viz., on June 8th, 1889. The brain was typical of general paralysis. There was considerable opacity of arachnoid and injection of pia mater, and the latter membrane was so adherent that it could not be stripped anywhere without decortication. Great wasting of gyri. Ventricular floor granular. Weight of brain, 1,070 grammes.

Between 20 and 30 years of age, as we know, the disease is fairly common, and we all could quote several examples of it.

It is thought by some that general paralysis is becoming more frequent now than formerly, and certainly, with the constant straining effort entailed by modern civilization, we are not likely to see a diminution in the victims of this

disease; and, along with this, it may be that the disease is tending to appear in the individual at an earlier age than formerly. Be this as it may, I submit that the above cases prove that the disease may be met with at a far earlier age than has until lately been thought possible, and that the period of puberty, and even childhood, can no longer be regarded as exempt from its attacks.*

Since the above paper was written I have had another case of juvenile general paralysis under my care, in a boy, which proved fatal at 16 years of age. The case bore a close resemblance to those above described—the progressive paralysis, with complete fatuity and great emaciation, together with contractures, being prominent features. The brain, which weighed 912 grammes, was very typical of general paralysis, there being great opacity and thickening of membranes, extensive adhesion and decortication, and immense wasting, etc. The duration of the disease could not be ascertained, but he was in a very demented state a year before his death. His father was English and his mother Italian. Both parents were very intemperate, and parental neglect and a condition of semi-starvation were prominent features in the case.

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* Dr. Percy Smith has kindly sent me notes of a case of a youth of 15, seen at Bethlem Hospital as an out-patient in 1890, with symptoms closely resembling those of general paralysis. He was admitted for a short time into St. Thomas's Hospital, but the symptoms remaining stationary he was taken away, and the case has been lost sight of. As Dr. Percy Smith did not see the case again, he is unable to speak decidedly as to the diagnosis.

*The Formation of Subdural Membranes, or Pachymeningitis Hæmorrhagica.** By GEORGE M. ROBERTSON, M.B., F.R.C.P.Edin., Medical Superintendent, Perth District Asylum, Murthly, late Senior Assistant Physician, Royal Asylum, Morningside, Edinburgh.

(Concluded from page 12).

PART II.

Physical and General Conditions of Membrane Formation.

At the commencement of our description of subdural membrane formation, we deferred consideration of the sudden lessening of intracranial pressure, which we regard as the most important cause of its production. This is a point we shall take up now, along with some other general questions connected with subdural membrane formation.

Lessened pressure may be divided into two important varieties. There is that which is due to a slowly acting cause, like cerebral atrophy, and there is that due to a suddenly acting cause, like a vascular spasm. The maximum effect is of course produced when both causes act together, and this combination is not uncommon. The occurrence of cerebral atrophy in most cases of membrane formation is fully recognized, and the loss of support thus produced is given by many as the principal cause of the engorgement and rupture of the vessels. That it has a tendency to do so must be conceded, when we consider its effect on such a resisting substance as the cranium. Paget has stated that the skull is thickened in cerebral atrophy, and it has become customary to speak of such thickenings of the cranial vault so often found in chronic insanity as "Compensatory hypertrophy" on that account. Another remarkable observation has also been made by Dr. Yellowlees of a patient of whose head a cast had been made on admission, and another after seventeen years, when he died. On comparing these two casts it was found that the latter had shrunk in all directions "by an amount equal to at least twelve cubic inches."† Accompanying the shrinkage there was cerebral atrophy, the cerebrum only weighing $35\frac{1}{2}$ oz. If thickening of bone

* Essay awarded the Bronze Medal of the Association.

† "Ed. Med. Journal," Vol. viii., 1863.

and shrinking of the skull can be assumed to be due to the loss of support produced by atrophy of the brain, the effects of this cause on the blood vessels of the dura cannot be overlooked. It is our belief also that this action is intensified by the greatly diminished quantity of blood which the comparatively functionless and inert brain requires.

Although it is generally conceded that atrophy of the brain tends to produce diminution of intracranial pressure, with loss of support to the vessels, yet it may be legitimately advanced that this loss of support is greatly neutralized by the increased effusion of cerebro-spinal fluid of a compensatory nature. The amount of this fluid in cases of atrophy is very greatly increased, as was known to Magendie, and we will need to describe this process of compensation before passing on to the sudden diminution of pressure produced by vascular spasm.

The brain is an organ inclosed in an air-tight case with rigid walls. All other organs have a tough elastic capsule to protect them from injury, and which permits the expansion and shrinking consequent upon functional activity and rest, but the protective covering of the brain is the cranium, and it is inelastic. The brain therefore needs special arrangements to permit of its expansion and shrinking, and these must be of a very perfect kind, for, on account of the enormous blood supply of the brain and its semifluid consistence, it may properly be considered an erectile organ. These results have been obtained by means of the cerebro-spinal fluid.

It is commonly stated that the brain may be considered to be suspended in fluid, but this is a very erroneous view, for the brain with its pia-arachnoid covering is in a serous cavity—the subdural space—in which normally little or no fluid exists.* All the cerebro-spinal fluid exists normally in the meshes of the pia-arachnoid, where it is bound down and mainly confined to reservoirs, the so-called water-cisterns, and in the ventricles, and it probably does not exceed four ounces in amount, in a state of health. The sources of this fluid are the choroid plexuses of the lateral and fourth ventricles, which consist of innumerable villi or tufts of capillaries, covered with cubical epithelium. These tufts secrete the fluid, which passes from the lateral ventricles by the foramen of Munro to the third ventricle, and by the *iter* to the fourth ventricle, where it receives an

* Foster's "Physiology," p. 1126.

addition from the choroid plexus there. It next passes by the foramen of Magendie to the inferior cerebellar lake, and round the cerebellum and crura cerebri to the superior cerebellar lake. This communicates along the peri peduncular and basilar canals with the great central lake, at the base of the brain. From the sides of the central lake there arise the two Sylvian lakes, which are extended into the Sylvian and Rolandic rivers. From these rivers tributaries extend along the minor sulci, and by these means, though somewhat circuitous, cerebro-spinal fluid is carried to every part of the surface of the brain.* Much of the usefulness of cerebro-spinal fluid for purposes of compensation will depend upon the rapidity with which it can be secreted and absorbed. In the dog fluid has been seen to be secreted at the rate of from one ounce to $7\frac{1}{2}$ ounces in the 24 hours.† This fluid is absorbed by the Pacchionian glands and secreted into the veins and sinuses, for Quinke found that cinnabar injected under the spinal arachnoid found its way into these glands.‡ The rate of absorption is very much more rapid than the rate of secretion, as Duret found, and appears to depend on the pressure the fluid is subjected to.

The cerebro-spinal fluid plays a very passive part in the regulation of intra-cranial pressure, and the blood is the active agent. In this respect the cranial contents may be conveniently divided into three agents; there is firstly the more solid parts of the brain substance, which may be described as *neutral*. Though these do effect changes in course of time, as in atrophy and in tumour formation, yet in sudden alterations they act a neutral part. There is secondly the blood, which is, *par excellence*, the *active* agent. If the arteries dilate or contract, or if there be retardation to the venous outflow, there are sudden alterations in pressure. Of sudden alterations there are several which are physiological; there are the pulse waves, the respiratory waves, the vascular waves (2-6 a minute), the diurnal wave of functional activity and sleep, and finally innumerable accidental waves due to cerebral activity, as in intellectual and emotional states.

The third agent is the cerebro-spinal fluid, which is the *passive* agent, and whose quantity usually depends upon that of the blood. As the cranium is a closed box, and its con-

* Duret, "Traumatismes Cerebraux," 1878.

† Foster, "Physiology," p. 1129.

‡ Meynert's "Psychiatry," p. 229.

tents always completely fill it, when the active agent, the blood, increases or diminishes in amount, the passive agent, the cerebro-spinal fluid, must alter in amount inversely, the brain substance being regarded as neutral. Now, we believe that those who are liable to suffer from false membranes of the dura are especially prone to have great vascular disturbances in the brain. Both the general paralytic and the senile* are subject to sudden congestive or apoplectiform attacks, which must disturb the intracranial pressure, and put a great strain on the regulating mechanism. The exact vascular condition during these attacks is not definitely known, but if there be a paralytic distension and engorgement of the vessels at one stage, it is most probable that at another stage there is constriction.

We had a case which strongly supported this belief, for, during a so-called "congestive attack" in a general paralytic, the left temporal artery was dilated to nearly the thickness of a lead pencil on one day, and on the next it could not be felt with the finger. Since then we have seen several analogous cases.

Let us now picture to ourselves the exact physical phenomena in such a case. In the first place, we have an atrophied brain, containing a diminished quantity of blood, and an abnormally large quantity of cerebro-spinal fluid. The brain now becomes congested by a vaso-motor paralysis, probably of the anterior and middle cerebral arteries, and the swollen brain causes an absorption of most of the cerebro-spinal fluid. Then a third stage of vaso-motor spasm occurs, with anæmia and a morbidly great shrinkage of the just swollen brain. The demand for cerebro-spinal fluid will be sudden and great, and it comes at a time when the supply has been much diminished to regulate the previous over-pressure. The result will be that, in many cases, the lessened pressure cannot be met by the secretion and conveyance of fluid for a considerable time. A vacuum will tend to be produced, allied to dry-cupping, and the vessels of the dura will become engorged and will rupture as we have indicated. The effused blood may be regarded as being compensatory in its nature.†

We have observed a fact which lends great support to the above view of diminished pressure. The dura mater—of which we have a dried specimen—was intensely engorged

* Charcot, "Syd. Soc. Trans."

† Wigglesworth, "Journ. of Ment. Sci.," 1888.

with blood, and a dense meshwork of capillaries covered its surface. It was observed, however, that there was a sinuous line, about one-eighth of an inch broad and about two inches long, which was pale and uninjected. The area of capillary engorgement stopped short suddenly at this line, and this made the contrast between the pale line and the reddened surroundings very striking. The sinuosities and position of this line exactly corresponded with those of the largest frontal vein. We believe to account for this that there must have been a sudden diminution of intra-cranial pressure, and that the superficial capillaries of the dura became engorged owing to this dry-cupping action. The same cause would produce engorgement of the most superficial veins of the brain, and these being distended would project above the surface of the pia-arachnoid. This slight projection would to some extent neutralize and compensate for the shrinkage of the brain, and would give support to the capillaries of the dura lying in contact with the pia-arachnoid along the course of the vessel.

We may mention that this peculiar marking occurred on both sides of the brain, and we have several times seen it since, in a less marked degree. It can only occur when there is a certain limited degree of brain shrinkage, which corresponds exactly with the distensibility of the vein, and its projection above the surface of the pia-arachnoid.

The site of the false membranes also supports the above view, and the extreme frequency of its occurrence over the convexity of the hemispheres is a most remarkable feature, which has never been satisfactorily accounted for. The distribution of the membrane is almost invariably as follows. It extends in breadth from near the falx to the outer wall of the middle fossa, where it gradually thins away; and in length from the middle of the frontal region to the beginning of the occipital region, being more in front than behind the middle line. This localization is acknowledged by all parties, and, whereas Huguenin merely states that it corresponds with the parietal bone without giving reasons, Virchow states that it is contained within the area of distribution of the middle meningeal artery, but why this area should be specially prone to inflammation he does not explain. We, on our part, believe that several different and apparently satisfactory reasons can be given for the selection of this site

by the false membranes, which are in keeping with and support our theory of diminished intracranial pressure.

In this relation the views of Dr. Luys* on the exact position of the brain in the cranial cavity are most interesting. He believes that the attitude makes a difference to the position of the brain—that in the erect attitude the brain tends to fall away from the cranial vault, and that in the recumbent attitude it tends to fall away from the frontal bones. In the dead body a movement of from 5 to 7 m.m. is found to take place. In the living body the cerebro-spinal fluid would facilitate these movements, and, of course, would compensate for any vacuum that would tend to occur. That the weight of the brain must tend to cause such movements is obvious when the old and erroneous view of an organ suspended in fluid is given up. This tendency is demonstrated to us by the fact observed long ago by Magendie,† that the weight of the brain has imprinted the shape of the convolutions on the orbital plate, and on the floor and side of the middle fossa, while over the vertex and parietal eminences no marked depressions have been left by the convolutions. Now, it so happens that the regions which are not marked correspond very accurately with the site of the false membrane formations, in which area we believe there is diminished pressure. Of the diminished pressure in this area we have another confirmation—the apparent converse of the above—in a specimen of so-called “compensatory hypertrophy” of bone in an imbecile. The cancellated tissue is enormously increased in amount—no doubt because the cause operated during development—so that the parietal bone is nearly half-an-inch in thickness. This compensatory thickening is limited inferiorly to the parietal bones, and stops short on the outer side of the middle fossa, just where the imprint of the convolutions begins as a rule, and we have found similar examples in senile skulls.

Let us now study what movements take place when sudden shrinkage of the brain occurs. Were the brain lying free in the middle of a spherical space and unaffected by gravitation, when shrinkage occurred it would leave the walls of the space equally in all directions; but, apart from gravitation, the brain does not lie free in the cranial cavity; it is tacked superiorly to the middle line of the cranial vault, and it is firmly bound down to the floor of the cranial

* “L'Encephale,” Vol. iv., 1884.

† “Leçons sur le système nerveux.”

cavity. The adhesions near the middle line superiorly are by veins entering the longitudinal sinus, and by prolongations of the pia-arachnoid into the pacchionian bodies. These adhesions, as may be tested, allow a considerable play, being elastic. The adhesions of the base, on the other hand, are of a much stronger and more rigid description. They include the crura cerebri, the carotid arteries, and the optic nerves, and these bind the organ firmly down. When shrinkage, therefore, takes place, instead of leaving the dura equally, the brain must contract towards the base, and this increases the tendency to the production of a vacuum over the upper surface of the brain much more than at the base, and it is, therefore, at the former site that false membranes are more likely to be formed.

In connection with shrinkage, the arterial supply of the brain is an important consideration. There are three cerebral arteries—the anterior, middle, and posterior—and of these the anterior and middle are from the same source—the internal carotid—whereas the posterior cerebral arises from the basilar, produced by the union of the two vertebrals. Whatever may be the explanation, whether it be the different origin or not, the area of distribution of the posterior cerebral is less affected by disease, especially general paralysis, than that of the two vessels arising from the internal carotids. Their common origin may predispose to their being diseased together, as may be seen in the area of atrophy and adhesions in general paralysis. When a vaso-motor spasm occurs, especially in this disease, it is exceedingly probable that these two vessels will be involved together, and that the brain will shrink most markedly in the area of their distribution. This area, on the outer surface of the brain, corresponds remarkably accurately with the usual site of false membranes, which extends more anteriorly than posteriorly, and which passes down to the side of the middle fossa. The middle cerebral artery supplies the whole of the superior and part of the middle temporo-sphenoidal convolution, and these form the inferior boundary of its area of distribution. By examining Fraser's plates,* or the convolutional depressions on the bone, it will be seen that this inferior boundary also corresponds almost exactly with the lower border of the parietal bone.

We have thus discovered an extraordinary series of coincidences which must be of more than an accidental nature.

* "*Atlas of Cranial Surgery.*"

There is, firstly, the absence of convolitional marking, limited inferiorly by the parietal bone; secondly, the occurrence of compensatory hypertrophy limited inferiorly to the parietal bone; and, thirdly, there is the occurrence of subdural membranes with the same limitation. All these three conditions we believe to be brought about by the same cause—diminished intra-cranial pressure—and, as regards the production of subdural membranes, there is the additional coincidence that the middle cerebral artery—the most liable to disease of the three cerebral arteries—has also the same limitation. This last fact we consider of supreme importance, for we believe the pathological lesion of subdural membranes is almost invariably associated with and is the result of cerebral disease, and the coincidence of its usual site with the area of distribution of the middle cerebral artery gives our theory exceptional support. If subdural membrane be a purely local disease of the dura, such as inflammation, then these coincidences, however extraordinary, are accidental, but we do not consider this to be the case, as our study of the shrinkage of the brain towards the base, and our theory of diminished intra-cranial pressure connect them together. No other explanation of the site has ever been offered, excepting Virchow's statement that it usually corresponds with the middle meningeal artery, but as this artery supplies almost all the dura mater surrounding the cerebrum, this fact is not very remarkable.

As a positive demonstration of the tendency to the formation of a vacuum over the convexity of the brain, we have the well-known fact that comparatively large effusions of blood may remain there, in opposition to the force of gravitation;* and Heschl has made use of this argument, erroneously we believe, to prove that a retaining membrane must, therefore, previously have existed. Professor Greenfield has informed us of an instructive case of his in point, in which fracture of the skull was followed by effusion of blood in the subdural space. This was traced to its source, and, instead of gravitating to the base, it was found to have flowed upwards over the convexity. This fact is interesting in conjunction with the observation of Duret,† that, after concussion, there is intense arterial constriction of the

* In cases of profuse hæmorrhage, where the blood is not compensatory, it obeys the law of gravitation.

† "*Traumatismes Cérébraux*," 1873.

cerebral vessels, in one experiment so complete that no blood flowed from the jugular veins. The occurrence of such a constriction, with great shrinkage of the brain towards the base, would fully account for the phenomena of Professor Greenfield's case, according to the views we have advanced. We have seen two cases of undoubted primary hæmorrhage of which the sources were traced, and both of which occupied the convexity. One was a case of phosphorus poisoning, in which a fatty vein had burst near the longitudinal sinus. The other was a rupture of a large Rolandic branch of the middle cerebral artery, through the pia-arachnoid, during an attack of influenza. These cases have convinced us, along with results of the experiments of injecting blood, that subdural membranes may develop directly from effused blood in this manner, without the previous formation of a fibrinous film, such as we have described in the first part. This we did so fully in order to meet all the objections of those who hold the Inflammatory Theory, and to account for their observations.

Regarding some of the general conditions which predispose to the occurrence of subdural membranes, we would agree with Huguenin* that all "diseases which impair seriously the constitution and nutrition" do so on account of the anæmia and shrinkage of the brain they produce. We would mention specially phthisis, which is sometimes accompanied by very great emaciation, and in which the coughing tends to produce venous engorgement. Of 41 cases reported by Dr. Wiglesworth,† 22 were general paralytics, and of the remaining 19 nearly one-half (eight) were apparently cases of consumption.

These exhausting diseases also tend to develop fatty degeneration of the walls of the intra-cranial and other blood vessels, and, therefore, they rupture more readily than in health. This is, without doubt, in many cases a predisposing cause.

A very interesting cause, given by Schneider,‡ is traumatism, which occurred in 17 out of 74 cases, and Dr. H. Sutherland§ also believed it to be a frequent cause. Direct rupture of the vessels in all these cases is doubted by Huguenin, and we suggest that Duret's arterial spasm,

* Ziemssen's "Cyclopædia of the Practice of Medicine," 1877.

† "Jour. Mental Science," 1888.

‡ "Inaug. Diss. Zurich," 1874.

§ "West Riding Asylum Reports," Vol. i.

following concussion, may be the immediate cause. All cerebral diseases accompanied by wasting, such as dementia, predispose to it, but we believe that coarse cerebral lesions, which are so often accompanied by periodic vascular storms, also favour its occurrence. Of all diseases general paralysis is by far the most frequent cause of subdural membranes. It is accompanied by the greatest amount of atrophy and is peculiarly liable to the occurrence of vascular storms. The same may be said, in a lesser degree, of senility, and the following table from Huguenin demonstrates the frequency of its occurrence in the aged:—

Under 1 year.....				2·7 per cent. of all cases.		
From 1 to 10 years	...	2·7	„	„	„	„
„ 10 „ 20	.....	1·5	„	„	„	„
„ 20 „ 30	.....	5·5	„	„	„	„
„ 30 „ 40	.....	12·5	„	„	„	„
„ 40 „ 50	.....	17·6	„	„	„	„
„ 50 „ 60	.....	13·5	„	„	„	„
„ 60 „ 70	.....	19·0	„	„	„	„
„ 70 „ 80	.....	22·0	„	„	„	„

The high percentage between 40 and 50 years is due to the greater frequency of general paralysis in that decade; otherwise there is a steady increase with advancing years. This last fact we believe to be one which tells most severely against the inflammatory theory, for inflammation is an affection much more liable to occur in the earlier periods of life. We may also mention here that in two recent cases in which there was found a lately-formed membrane, we were told by the patients, on the day of their death, that they suffered from no pain in the head, though direct inquiries were made, as the presence of membranes was suspected by us on theoretic grounds. The dura is well supplied with nerves, and is very sensitive in health, and, therefore, it is inconceivable that recent inflammation could have occurred in it without giving rise to some pain.

In conclusion, we again state that not in an active inflammatory hyperæmia of the dura mater is the explanation of “pachymeningitis hæmorrhagica” to be found, but in the passive engorgement of a compensatory nature, caused by a process analogous to dry-cupping. This is brought about by a shrinkage of the brain, which, owing to its suddenness, and to a deficiency of cerebro-spinal fluid, has not been compensated for. A negative fact of value is the statement by so experienced a pathologist as Dr. Bevan

Lewis,* that he has never seen a subdural membrane form round the cerebellum. Our explanation of this fact is that shrinkage of the cerebellum, from its small size, can never be great in amount, and as the organ is not only exceptionally well supplied with water-cushions, with a ventricle and a choroid plexus of its own, but contains the orifice from which all the cerebro-spinal fluid gushes out, the necessary physical conditions analogous to dry-cupping can scarcely ever occur under these circumstances. In addition, the cerebellum is not encased in a rigid box, as it has a membranous lid. We wonder what explanation the *Inflammatory School* would give of this negative fact of importance; possibly, that the dura here is not supplied by the middle meningeal artery. We may add that we have seen subdural membrane in the cerebellar fossa, but it had obviously developed from blood which had trickled into it by gravitation.

A Chronicle of Infant Development and Characteristics.

By Sir WALTER G. SIMPSON, Bart.

The following notes have been made from time to time in the hope of contributing materials which will serve to elucidate the important subject of the gradual unfolding of mental capacity in childhood.

Child James, born 5th September, 1882. Jottings begun 30th May, 1883.

Summary of first eight months.—Kicking, eating, sleeping, crying when wishing to eat or sleep, crying when unsatisfied began first hour, and were all he did for some time.

At the age of three months one could judge by direction of eyes that ear directed to actual person speaking. For three weeks previously desire to know whence sound came shown by eyes wandering at sound of voice, but unable to determine whence it came.

Infant began to coo with satisfaction. After fourth month James learned to coo to people for things, and used "coo" as a sign of approval on entrance of anyone he was well accustomed to. At this stage, being scolded (when ill and unable to sleep for not going to sleep), he replied by cooing in evident imitation of the scolding. At four months took notice

* "A Text-Book of Mental Diseases."

of a bright-papered room, and continued to show a particular exclusive interest in said paper for weeks.

Till six months old he showed no objection to persons, even strangers. At this age exhibited a dislike to a lady whom he was accustomed to see often. At seven months ceased to object, she putting out end of tongue to him, and making a noise, a motion he at once imitated, though he had never seen it before.

During the first eight months the following powers were noticed as developed:—(1) Distinction of persons and difference of manners to them, *e.g.*, readiness to go to his father, who only came in to see him for minutes at a time, and was never demonstrative; a pretence of turning away from mother when she came in, knowing she would fuss; and an expression of triumph and a look to nurse or mother, asking approval. (2) At this time a new nurse, whom he liked at once. Former one had taught him by scolding to lie in bed for long periods playing with things. Found by crying that he could make new one take him up; refused to lie. (3) About seven months decidedly learned to smile and to use it as a sign of recognition and pleasure, and almost suddenly, and for some weeks indulged in this sign of approval inordinately. (4) Delighted and smiled when made to clap hands; very doubtful whether or not attempts were made (at eight months) to do it himself, but remained with hands touching each other in position when encouraged to do so. (5) When laid on back could roll on to face. (6) When lying on floor could recover any object within reach. If out of reach and given, say, a ruler, hit at things he wished for which were out of reach, and took them if they came within reach. Evidently throws it out of reach again and tries to recover it. But there is no knowledge of how to bring it within reach. He merely sweeps at it, but knows enough not to strike from above. I say *knows*, because, for instance, if given a spoon and dish cover he strikes cover from above in order to make sound.

(2) Takes pleasure in throwing pieces of bread to dog. Always shown interest in dog since first saw anybody, *i.e.*, looked at them. Dog showed repugnance to him, would not look at him, whimpered with jealousy when master took child. Since child has been able to sprawl on floor (six months) dog licks his face—shows, in short, that it recognizes his humanity.

(3) *Voice. Crying.* After three months cooing has done more and more as language. At five months ug-gug came into use as another word meaning the same. Since he has learnt to

smile, cooing and ug-gug given up, and crowing combined with smiles used instead. Crying has two tones, one expressive of pain or desire for sleep, the other of impatience. Seem to be more tears with the cry of impatience than with the other. In addition to crowing he expresses himself by a kind of groaning grunt when he wishes food and sees it being prepared. This grunt has various tones, more and more impatient. In short crowing has its analogy in the articulate sounds made by deaf-mutes.

Nine months old showed modified jealousy. Mother kissing before him another child, crowed, laughed, tried to get to her, and finally impatient. Learned to feed dog with biscuits given him, and enjoyed the fact of its eating them.

Noted when nine-and-a-half months old.—After absence from home in London taken to look at birds in aviary; was interested and followed their motions with eyes. Before (absent three weeks) had not seemed to see birds, but was only vaguely astonished at their song, not recognizing whence it came.

Noted when ten months old.—Taken to the country. Distinctly began to look at objects not within reach, and even at general landscape. Previously no appreciation of objects not within reach or interest in anything not verifiable by touch (except startling and bright pieces of colour, such as painted glass as already mentioned). Has as yet no understanding of scolding. Prevented throwing off his hat; does not see there is a conflict of wills, but throws it down again and smiles at scolding. Being restrained from doing anything, has nothing but the instinct to resist the restraint. No sense of conflict of wills. Desire of approval well developed. Having achieved (with difficulty) to stand leaning against a chair, looks round for approval, *i.e.*, understands applause, but does not understand the meaning of blame. My wife kissing me when I had him in my arms, he was evidently interested, and after some time imitated her by *putting out his tongue and touching my cheek*. The operation often repeated with same result. No sign of jealousy as in the case of the other child.

It is noteworthy that dog now recognizes his humanity; does not lick him like a puppy; is not jealous when he is made much of, yet does not treat him like a grown-up person in this. If child has a biscuit, takes it if child offers indeed, but never asks by tail-wagging; merely waits till child's attention is distracted, and then steals it out of his hand. Boy persists in habit of pretending not to notice persons who pretend not to notice him. If he make advances to come to

me when I enter the room, and if I pretend to take no notice, I have found that even during three minutes, though brought near me, he will not look till I make the first advances.

Noted when thirteen months old.—Met him in the street in his perambulator far from home. The day before when I called from my window (second storey) to him, he (being accustomed to notice me from there) chuckled and showed a disposition to go to me. When I came upon him far from home it evidently caused him to reflect. There was no demonstration, reflection evidently absorbing him. He gazed, and after gazing held out his hand and smiled, and then holding my finger continued evidently thoughtfully to gaze. When I left him he gazed after me, leaning over the perambulator to see where I was going, but without crying to be lifted, his habit when he meets me in a familiar place.

Thirteen months old.—Suddenly developed an interest in pictures. Seems suddenly to have noticed them. Since this kind of observation has dawned, whenever brought into a room with pictures he points to them and utters sounds which either mean pleasure or a desire to draw attention. I have tested this picture mania. A coloured photo of my father is his favourite, though others are near it. In another room an oil—"a jester"—is his selection. A portrait of myself (the same size and frame) does not arrest him, probably because in a bad light. It is not brightness of colouring which attracts him, because—1st, he turns away from some bright landscapes near his favourites; 2nd, if put near enough he puts a finger on my father's and the jester's face; 3rd, a framed photograph of myself and others is a favourite. When brought near this photo, however, he does not recognize me. It is another face (which is the largest white patch in the group) that he lays a finger on when brought near the photo. He babbles to his favourite pictures when held before them, as if he were conversing.

Thirteen months.—Having been away from home for nine days, he accepted my reappearance with indifference, so great that his mother said he did not know me. Just as she said so he stretched out his arms to come to me, and instantly went for a whistle attached to my watch chain, which before I left he had been fond of spitting down in attempting to blow. It was some days before he showed the same amount of predilection for me that he had exhibited before I left. I have no doubt that a longer absence would have obliterated me from his memory. I do not mean by this that merely seeing people

endears them to him. On the contrary, my impression is that he more readily takes to near relatives than to strangers, *e.g.*, servants, whom he sees as much of.

Noted when fifteen months old.—Walked quite suddenly. Till the day he succeeded, a tendency to fall back, which deterred him from trying. The day he did it his hands happened to be out in front of him. For some time after his success he could only walk with them in this position.

Noted when eighteen months old.—Observation of things at a normal distance and in unaccustomed places has gradually developed. If at a window, and I in the street, he recognizes me, but not unless signs are made. Whilst out with his nurse I attracted his attention from across the street by waving my hands. There is no word he seems to have specialized and limited in meaning yet except "dad." "Dis," "dat" are his only other English words. Rapidly learning conditions of life by imitation, *e.g.*, opening and shutting boxes, putting things in and taking them out. Except crying and sucking I have recognised no actions purely instinctive. Of course distinctive character is developing, apparently from inborn qualities, *e.g.*, hemmed into a corner by a box, he squeaked like a guinea pig (his call for aid). I taught him to crawl over it. Having hemmed him into the same corner with a broomstick several times he will not cross it, though less formidable than the box, as I purposely abstain from teaching him to do so. The lid of an open box in which he was delving, having fallen on him, he squeaked till I answered, then waited till released (I kept him waiting some time), though it seemed easy to withdraw his head and shoulder. There is memory, *e.g.*, a week ago he was much amused on Sunday evening (the only evening he comes down) with a game with a bearskin rug. This Sunday evening he drew me to the rug and made me understand that he wished the game repeated. I had forgotten it till he explained. He, the rug, and I have been in the room every day since, *but not after dinner.*

Case of Reasoning.—Having hurt his mouth by licking the pepper pot, he won't let it near his mouth, but whenever he gets it tries to put it into my mouth.

His mother having been away two weeks he refused to go to her the evening of her return, cried when taken, and struggled to me or his nurse. Next morning he would have nothing to say to anyone else, *i.e.*, showed a strong preference for her to any one else. Comparing this with my absence at thirteen months, it is observable that the first reception in both

cases seems to show resentment at the absence. At thirteen months nine days had diminished his recollection of me as shown by my only becoming as much to him as before I left in the course of days. At fifteen months his mother had not begun after two weeks' absence to fade out of his life.

When I say I have seen nothing inborn as regards conduct, perhaps this is an exception. Behind the house at the foot of the back garden, which is bounded by a railing, there is a precipice. The child likes to walk up this garden, or green, with me, but recoils when within sight of the precipice, and screams if made to walk nearer to it. No one else has taken him to the spot. When carried right to the railing as an infant, say twelve months, he evinced no interest. This is curious, when contrasted with the desire to touch fire, and his complete want of fear in a dark room.

Some days later.—Has quite overcome fear of precipice. Wishes to walk up to the railings at the foot of garden, which directly overhang it. This not allowed, because they are wide enough for him to fall through.

Noted 18th February, 1884.—At this date I, having for five days had an attack of lumbago, could not take him about. Though his chief favourite to this date, on this account he showed, 1st, anger; 2nd, a proportionate coldness. Three days ago I took him downstairs to breakfast (though unfit), on account of his distress at not being taken. I had to let him down on the landing and finally to fall down myself with a spasm of rheumatism. He roared. Since, he will not come to me, and is only recovering confidence as I recover. To-day, being somewhat reconciled to me, I pretended to be stiffer in rising from my chair than I really was. This he watched, and although he had been playing round me till then, he fled roaring when I touched him, and has refused to come to me, although yesterday he was doing so, with the caution of a scout, but still coming.

Noted July 20th, 1884.—During five months most of his time occupied in acquiring knowledge of things by touch. Great insistence in getting into hands anything never seen before. If there is nothing more to be done with the thing, it soon ceases to interest. Anything mastered is given up, *e.g.*, rolling a ball on floor, but things not perfectly acquired are persevered with, *e.g.*, carrying coals to the fire, opening and shutting boxes. No original departures. Combinations of material, things made, and things employed in certain ways only when he has seen them so used and applied. Each time a thing is

seen done which he desires to do, it is perseveringly attempted till the imitation is nearly complete; after that it is never done except when necessary, never experimentally. Now being easy he will only do it if I refuse to lift him up or bring it him. On the other hand perseveres in putting a pipe in his mouth when he sees it done, because (only having seen an empty one) he can't produce smoke. A lighted match held to his pipe pleases. Smoke not coming, disappoints. Feeding himself with a spoon persisted in, also lifting his tumbler himself, although (or because?) very clumsy at both.

A new thing if within ability at once attempted if manual, *e.g.*, sweeping crumbs up with brush and shovel; giving money to cabmen, porters, interests but does not excite imitation, though coins are recognized playthings.

Original thought compared with imitative power very slight. Have not seen him attempt to put anything but coals and fire-irons into fire, except once his pipe after long thought. Into water everything is thrown, but this likely because his toys were thrown into his bath to keep him quiet. Could not go downstairs till last week, when he saw a child slip from step to step sitting. This he learned without trouble, practised perseveringly for an hour, and has since only done when required, preferring to be carried.

Smell seems little developed. He sniffs at flowers when his elders do, but snuffs too hard to smell, and as often with the flowers held to open mouth as not. Refuses intoxicants, but from colour, not smell. Raw, colourless whisky he puts to his lips if offered instead of water.

Sight has gradually developed from seeing only objects that were touchable to full development. Travelling last week, some things never before seen caused exclamations. These were woods, lakes, and rivers. Sheep and cows seen from the train excited him, but only if within about a hundred yards (these animals he knows at home). Smoke of steamer and steam engines caused fear. When passing through barren grand mountainous country he came from window.

Last week I saw first symptoms of indecision. He could not decide between going with me a walk and playing indoors with a child. He stood motionless half-way for some time, deciding finally for the child. The decision once made, he appeared not even to hear when I stood for a while (at some yards distance) persuading him. Hesitation probably caused by the novelty of refusing to go anywhere with me.

Noted November, 1884.—Speech.—Passed through parrot

stage of reluctantly repeating a word simply to get a reward, a period during which continually talking to self inarticulately. This suddenly given up, and words willingly attempted with the view of learning them for use. At this date will only attempt sentences for reward. Does not use them, but uses isolated words to express himself (along with gesture), and in answer, *e.g.*, will say who gave him a thing truly though the person not present. *Knowledge of things said* much more developed than apprehension of the use of words, in fact, understands language pretty fully, *e.g.*, being asked to do so he tried to reach and ring the bell; it being too high he brought, placed, and got on a chair as instructed, and then rang entirely from verbal orders without understanding the reason for the actions till the bell pull was in his hand.

Habit.—This is noticeably developing. Given the same place and circumstance he wishes to repeat the same actions, *e.g.*, next morning the whole process towards ringing the bell was gone through. Just before going to bed, if his father comes in, he is pointed to a chair, each pocket examined in the same order—pocket-book, watch, pipe, etc., etc. Rebels if not allowed to go through the whole routine; goes to bed if allowed to complete it. Also, three days' refusal will break a habit acquired, *e.g.*, having got a piece of apple at his father's breakfast regularly, after third day's refusal seemed to forget.

Deduction.—Being told to throw away a nut which no one would break for him he threw it in the fire. Since then all nuts he can find are thrown in the fire, and off his own bat he lifted his doll's clothes and placed it on the chamber.

Artistic.—Being taken down a wooded valley he had never seen in his father's arms he seized him by the ear, crying, "See!" and (father purposely looking in different direction) was not satisfied till my head was turned so as to see the most striking aspect of the scene.

Lying.—Even if caught red-handed in mischief, if scolded, unhesitatingly names someone else as the culprit, not always a person in the room.

Noted 8th July, 1885.—During the last nine months he has, of course, been acquiring greater accuracy and skill in every department in which he had made a start. It is noticeable that handling a new thing is not so much the chief way of acquainting himself with it. Shown a new thing he will now look at it very closely and be content (if it is not a thing he wishes to take away), finally merely to touch it. In no case,

however, is ocular examination alone sufficient. Looking at the works of my watch, I found from the first time he saw them that there was no desire to do anything but look for about 30 seconds, but invariably after that time, although he has never been allowed to do so, his hand rises for the purpose of touching. Distant objects of which he has no actual experience he does not seem to see, *e.g.*, clouds or a distant hill. But he recognizes a sailing boat at sea, and having come to the country in a steamer within the last week he yesterday recognized one at sea, and in pointing it out to me his excited manner evidently expressed delight in his own perspicacity and pride at identifying it. A proof how much touch has to do with knowledge is that till within the last few days I have apparently failed to get him even to see so common an object as a sparrow. When he did get his eye on what I was pointing at it roused no interest. I told him to catch the sparrow. This he rushed to do eagerly, but gave up at once when it flew away. He now points to a sparrow when he is with me, but evidently only to call my attention to a thing which (unaccountably) seems to interest me. Canaries in an aviary at home interest him. If allowed he tries to catch them. He calls them "birdie." When I explained that sparrow was birdie, he answered decidedly, "No, not birdie."

Within the last six months the necessity for restraining and even punishing has been forced upon seniors. Up till then, except in the matter of withholding things unwholesome, there was no feeling that the child ever did anything wrong. The wish to punish on the one hand and *to play* on the other seem to grow side to side. Up to about two and a half years he did not play. Up till then things were manipulated for the direct purpose of learning their nature and acquiring skill in using them, and they were thrown aside as soon as all the uses the child supposed they could be put to were mastered. Life was in earnest. There seems to be a pause in the desire to acquire knowledge in proportion to the new developing wish to get fun out of what he knows. For instance, till within the last few months mixing bread and water in a cup, or chopping up egg with salt would occupy him during my breakfast, and any spilling and messing arose accidentally, not by design. Now he tries from mere wantonness to upset the cream, he steals any food and runs away with it, etc., etc. A short time ago he was allowed a pair of blunt-pointed scissors. For days he clipped pieces of paper given to him, until he had mastered the art of clipping. After that the scissors had to

be hidden away, as he would no longer cut waste paper or anything given him to cut, but tried to exercise his art upon clothes. Having got a piece of string I said he must not cut it, and designedly pretended not to notice whilst he perseveringly minced it into small pieces. Next day he sat down to a similar task with another string, but at once gave it up when I expressed approval of what he was doing. Of course the playful spirit is not designedly mischievous. Doing wrong is an accidental concomitant, not its object. At an earlier stage, having mastered the nature of a doll he gave it up. He tired of one I used to make from a handkerchief; he has returned to it, he now talks to it, rolls it on the floor, quarrels with it, etc.

Each period of childhood seems to devote itself very industriously and principally to one branch of knowledge. He is always at work on language. Every day he learns one or two new phrases or terms. A new one which he catches in conversation he repeats with apparently a conscious effort to remember. A very large proportion of them—indeed, nearly all—are forgotten again. Nor is it certain that they will be adopted into his vocabulary even if noticed and echoed several times. When they do appear they crop up without effort, and appear as natural as the simplest child word. Such phrases as “I really must,” “Certainly,” etc., have so appeared. Of course, each phrase is a single word to his mind. They are always, if used at all, used in their proper sense. Some phrases are wrong, but these have been taught, *e.g.*, “To-morrow day,” the history of which I know. He learnt it when I was trying to explain what to-morrow was, and it remained with him because everyone in speaking of to-morrow to him so calls it, knowing it to be intelligible to him. Proper names are not all picked up by this process, *e.g.*, there is a rake in the garden which I have taken out of the toolhouse every morning for him, and which I purposely hid away during the day. For three days its name had to be repeated, on the fourth he knew it. I let a day elapse without producing it. On the sixth day its name was forgotten. For several days he had it every morning. Two were allowed to elapse. After this interval he seemed to know it without an effort, as there was after the first twenty-four hours of recollection.

Smell completely developed. Refused to taste kummel, although the colour of water, disliking the smell.

Discovered some facts of comparative anatomy lately with

great delight, *e.g.*, my feet, his feet, my hands, his. Not quite definite about homology of respective fingers.

Satisfied with very coarse resemblances, preferring a coarsely-made wooden horse with straight stick legs to a more artistically made one. When pointed out that his favourite had no feet, no knees, he pointed to the place where feet and knees would be, and said, "Not footy, no kneey," but did not seem to consider the absence of them a disadvantage.

He began to walk about two months ago. Before that, pace always a trot. Although still very seldom walks, the use of that pace is becoming more frequent.

Counts only up to two. Three conveys no idea to him. Repeats "three" when said to him, but not as a word he wishes to learn or understands the use of. If wishes more (*e.g.*, strawberries) put on his plate along with first two, says, "Another one two." Beyond that he says, "That enough," "not enough," or "a lot," according to quantity. If a lot are counted over one by one he does not attend and try to catch up the words three, four, etc.

Coming into new room last week (in house taken for summer) all things within reach attracted attention. Brass coal-scuttle "very pretty." Took no notice of pictures which at home he likes. Happening to climb on a chair some days later, a small water-colour of Merlin being level with his eye, he examined, and said, pointing to his red stockings, "Man pretty; tocky, dada, keechie tocky" (I wearing knickerbockers). Having seen a dancing-bear lately he detected one in "Coming of Age in the Olden Time," though there on a very small scale in the background.

Colour.—Has tastes. Objects to my wearing dark clothes if accustomed to see me with light. Objects when I take off a very gay house-coat. Picks it out from a heap of coats if asked to choose me a pretty coat. Attention being called to one picture on the wall when put down wished to be lifted to another, decidedly the gayest in the room. Being lifted up to it was disappointed and no longer interested, it being very sketchy, without definite forms in it from near. I have been teaching him the names and differences of colour, with little success. With one telling he learnt and remembered next day that my slippers were blue. This is the only colour he seems to comprehend at all. Thinking that blue slippers might be merely a name for that pair I showed him another pair, and asked if they were blue. He said at once, "Dada shoes not blue." Still, shown a flower in the garden of nearly the

same shade as the slippers said, "Not blue." After several lessons in flowers, although he will repeat red, yellow, white, when shown flowers of these colours he cannot name the colour, saying red, white, blue, yellow by guess. There is one exception. He is decided that the bush of bluish flowers are not blue, and equally decided that a bush of light pink and white flowers are. Thus, in general, bright colours please his eye. In particular, blue is the only one he has an idea of, and that not a definite one.

(To be continued.)

CLINICAL NOTES AND CASES.

Acute Mania following Rupture of the Rectum by Enema Thirteen Days after Ovariectomy. Recovery. By A. C. BUTLER-SMYTHE, F.R.C.S.Ed., Surgeon to Out-patients, Samaritan Free Hospital for Women and Children, Surgeon to the Grosvenor Hospital for Women and Children, Westminster.

Mrs. W., æt. 43, was sent to me in September, 1886, suffering from a large abdominal swelling. She gave the following history:—Married 20 years, but had never become pregnant. Health good up to two years ago, when she first noticed a swelling in her left side, and had difficulty in passing water. She also complained of back-ache and pain in the lower part of the abdomen, and was troubled with an offensive brown-coloured discharge from the vagina. Menstruation became irregular and painful, the flow varying in quantity. The swelling increased rapidly, extending from left to right, and filling up the whole "abdomen." Some weeks before her visit to me she had an attack of inflammation in the abdomen, which seemed to fix the swelling and greatly impeded her breathing.

When I first saw her it was evident that she was suffering greatly and in a dangerous condition. Her face was drawn, lips blue, nostrils dilated, conjunctivæ suffused, and the respirations 40 to the minute. Pulse, 120; temperature, 100. Skin dry, tongue foul, bowels costive, and the urine scanty, high-coloured, and loaded with lithates. Sp. Gr. 1028. No albumen or sugar. The abdomen was greatly distended, the circumference at the umbilicus measuring 50 inches. There was dulness over the whole surface, except far back in the right flank, and immediately below the ensiform cartilage. No distinct fluctuation could be made out.

Bimanual examination revealed the uterus in front of the tumour, drawn high up on the right side, the body and fundus being easily distinguished through the abdominal wall. Per vaginam, the cervix uteri could be felt behind the pubes, and the sound passed into the uterine cavity to the extent of three inches with a forward curve. The lower part of the tumour was firmly wedged in the pelvis, and pulsation could be detected through the vaginal wall.

On September 16th, 1886, ether was administered, and the abdomen opened. The tumour was found to be universally adherent to the parietal peritoneum, omentum, and intestine, and much time was spent in separating adhesions and securing bleeding points. The pelvic portion of the tumour was enucleated and the capsule fastened to the lower end of the abdominal incision. The peritoneal cavity was then thoroughly sponged out and a drainage-tube placed in the sac formed by the capsule. The wound was closed with silk sutures and dressed with carbolic gauze, and the patient was then removed to bed after an operation lasting $3\frac{1}{2}$ hours. Much blood had been lost, and the patient was extremely collapsed, but she rallied well and had no sickness. The tumour removed was a cystic papilloma of the left ovary, burrowing deep into the left broad ligament. The contents were dark and gelatinous, and the cyst wall was, in parts, half-an-inch thick with masses of papilloma spread over it. The first urine drawn off was dark with carbolic acid, and this condition lasted for three days, after which the urine was quite clear. Flatus did not pass voluntarily till 48 hours after the operation. Metrostaxis occurred on the third day, and continued for a week, during which time the pulse averaged 120, and the temperature ranged between 104.6 and 101.8.

At the end of the first week the abdominal wound had healed, but the drainage-tube was left *in situ*, as a couple of drachms of sour sanious fluid were drawn off through it night and morning.

On September 24th, the eighth day after the operation, an enema of ten ounces of olive oil was ordered. By an unfortunate mistake a pint and a half of soap and water was given after the oil, and there being no immediate action of the bowel, this was followed by another injection of soap and water, the result being that the rectum burst and the fluid came through the drainage-tube, saturating the dressings. The patient afterwards declared "that whilst the enema was being administered she felt a sudden pain as though something had given way in her inside, and almost immediately the bandages became soaked through." About four hours after the accident I was informed of the occurrence, and on examining the patient found fluid still welling out of the drainage-tube. As much fæculent fluid as could be got out of the tube was drawn off by the syringe, and an enema-tube passed into the rectum to assist in draining the intestine. A large pad of

absorbent iodoform dressing was placed over the abdominal wound, and the patient put into another bed. Pulse, 120; temperature, 101·6. Within the next 48 hours the temperature rose to 102·2; but there was no pain or abdominal distension, and the only trouble complained of was "a soreness of the back passage." Fæcal matter and flatus were constantly passing through the drainage-tube, but no bad symptoms appeared, and the patient went on as if nothing had happened.

On *September the 27th*, the eleventh day after the operation, and the third following the accident with the enema, the patient appeared restless, and had little or no sleep. The temperature was 101·2, and the pulse 130. Later on in the day the temperature rose to 102, when she began to talk nonsense, and at night became delirious. As it was difficult to keep her quiet, the drainage-tube was removed, and twenty grains each of chloral and bromide of potassium given by mouth, and ordered to be repeated every four hours if necessary.

September 28th.—An ounce of castor oil was given by the mouth, after which the bowels acted freely and without pain; but some fæcal matter came through the tube-opening in the abdominal wall. Evening temperature, 101·8; pulse, 120. The patient had had no sleep for twenty-four hours, and lay tossing about in bed and talking wildly.

September 29th.—On the thirteenth day after the operation, and the fifth following the accident, the patient became maniacal and made several attempts to get out of bed. Half a drachm of tincture of opium was ordered to be given every third hour, but after the second dose she became so excited that I ordered the drug to be discontinued, and the chloral and bromide mixture, with the addition of half a drachm of tincture of hyoscyamus, to be resumed. She derived no benefit apparently from the change of medicine, for she got no sleep and was extremely violent throughout the night. Evening temperature, 101·8; pulse, 122.

September 30th.—Patient worse, very restless. Morning temperature, 101; evening temperature, 100·8; pulse, 140. She complained of pains in the "stomach," for which a drachm of tincture of hyoscyamus and twenty grains of chloral were given.

October 1st.—The afternoon temperature rose to 102·8, pulse 130, and thready. Twenty grains of quinine were given by mouth, and an ice-cap put on. A tablespoonful of champagne was directed to be given every hour till further orders. The temperature fell to 100·2 within an hour and a half, and the patient had some sleep; pulse 110, and stronger.

October 2nd.—She seemed to be slightly better, so the stimulant was decreased, and more fluid food administered by mouth. Temperature lower and pulse stronger.

October 3rd, 4th, and 5th.—During these three days she appeared to get worse. Fæces and urine were passed involuntarily, and she

became unmanageable. A sixth of a grain of morphia was injected hypodermically, but apparently it increased the excitement, and therefore was not repeated, 3i doses of tincture of hyoscyamus being substituted.

October 6th.—Patient had a rigor. Afternoon temperature rose to 103, pulse to 140. Twenty grains of quinine were given by rectum, and the temperature fell to 100 in about two hours. Fæcal matter still issued from the abdominal wound. She was extremely violent.

October 7th.—The morning temperature suddenly dropped to normal, but the pulse kept about 120. She was very excited and savage, requiring constant watching.

October 8th.—Much exhausted. A mixture of ammonia and bark was given every three hours, and a tablespoonful of brandy every hour. She slept a little during the night, and was much quieter the whole of the day. Afternoon temperature, 101·2; pulse, 120. Skin dry, tongue moist, and urine normal.

October 9th.—Temperature this morning 98·2. A large slough containing deep ligatures was extracted through the wound. Patient much stronger, but mental symptoms worse. She refused to take her food, and tried to bite her attendants whilst being fed. Pulse, 120; evening temperature, 100·6. One-fourth of a grain of morphia injected, but without much benefit. Stimulants, egg and brandy mixture every hour in half-ounce doses.

October 10th.—Mental condition much the same. Morning temperature 100·6, in the afternoon 98·6.

October 11th.—Another large slough containing deep ligatures came away. For the first time since her attack patient had several hours' sleep. Morning temperature, 99·6; pulse, 120. It was noticed that she was passing large quantities of limpid urine, alkaline, sp. gr. 1005, and containing a trace of albumen. Evening temperature fell to 98·6.

October 13th.—Large slough with ligatures extracted. Temperature varying between 99 and 100·6; pulse 130, and small.

October 14th.—Another slough containing ligatures came away. Evening temperature up to 101·4. Patient very violent and wakeful.

October 15th.—Rectum cleared by enema, part of which escaped through the tube-opening. Large quantities of limpid urine drawn off by catheter. Morning temperature, 99; evening, 101·6.

October 17th.—Morning temperature 98·6, but at midday it rose to 103·6, and the pulse to 120. She became wildly maniacal, and restraint had to be employed. Twenty grains of quinine were administered by rectum, and ten grains more three hours afterwards. In less than an hour after the second dose the temperature had fallen to 100 and the pulse to 105; sixty ounces of urine drawn off in twelve hours. During the next five days there was

not much change in the patient's condition. Her temperature remained below 101, and pulse between 105 and 110. She refused her food and had to be artificially fed. Slept from time to time, but when awake was beyond control.

October 23rd.—Patient had an attack of diarrhœa and complained of pains in the abdomen. The morning temperature fell to 97·4, and the pulse was extremely feeble. The extremities were cold and clammy, and she seemed to be in a state of collapse. Chalk and opium mixture was given to check the diarrhœa, and hot brandy and water administered by the mouth. Hot-water bottles were placed to her sides and feet, and a mustard leaf applied to the cardiac region.

October 24th.—Patient had a good night and slept well. She awoke refreshed, and her mental condition showed marked improvement. She seemed to know when she was passing urine or fæces, and called for the bed-slipper. The quantity of urine drawn off in the last twenty-four hours amounted to sixty ounces. Highest temperature 101.

October 25th.—Two ligatures removed from capsule. Patient slept for four hours and seemed better in every way.

October 26th.—A small piece of mutton chop was given for dinner and she seemed to relish it. Slept for five hours afterwards and awoke refreshed.

October 27th.—The restlessness reappeared, and later in the day she again became decidedly maniacal. Pulse 130 and bounding. Afternoon temperature 101. She seemed to have great abdominal pain, therefore half-an-ounce of castor oil was given by the mouth and an enema administered afterwards, but without much result. Evening temperature 100.

October 28th.—The afternoon temperature rose to 103·2, but no rigor was noticed. Another large slough containing deep ligatures was extracted through the abdominal wound. Twenty grains of quinine were given by rectum, and the temperature fell to 100·8 within two hours, and the pulse was reduced from 120 to 100 beats. The bowels were cleared out by castor oil, given by the mouth, and the patient quieted down and had some refreshing sleep, and awoke in a much better condition.

She improved mentally and bodily during the next three days, but the temperature kept about 101, and the pulse varied between 120 and 100.

November 1st.—Temperature in the morning 98, in the afternoon 101·6. The bowels acted four times, and by night the temperature had fallen to 100·4.

November 3rd.—The patient appeared much better, but seemed rather dazed and unable to collect her thoughts. However, she recognized her attendants, and was quieter than usual. Midday temperature 98·2, pulse 110. Evening temperature 101. For the next two days she continued to show marked improvement, her

appetite increased, she slept well, and behaved in a reasonable manner.

November 6th.—Her temperature rose in the afternoon from 99·6 to 103, and the pulse increased to 130. An ounce of castor oil was given by mouth, and the lower bowel cleared out by enema. Twenty grains of quinine were also given by mouth with good result, the temperature falling in a few hours to 100·2, and the pulse being reduced to 112.

November 7th.—For the first time since the attack she talked sensibly, and even asked questions. She declared "that during her illness her impression was that she had been confined of twins, and that they had been taken away and kept from her without her consent." She also maintained "that if restraint had not been used she would have injured her attendants." Highest temperature 100·8, pulse 120. During the next week she rapidly gained strength and sat up in bed to meals and fed herself. With the exception of slight outbursts of temper she appeared to be quite rational.

November 14th.—Menstruation came on without discomfort. She had complete control over her rectum and bladder. The abdominal wound was much smaller, but flatus and faecal matter still passed through it. Pulse 100. Evening temperature 100.

November 27th.—Patient able to walk about her room and remain up for hours. She is now perfectly sane and quiet, her only trouble being the faecal fistula, which is, however, rapidly closing. A few days later she returned home quite convalescent.

Remarks.—I venture to report this case not alone because of the attack of mania following ovariectomy, but also to record the unfortunate accident with the enema. Rupture of intestine by enema is fortunately of rare occurrence, but the fact of such an accident having happened serves to show that rectal injections cannot be too carefully given at all times, and especially in diseased conditions of the intestine, or where drainage is being carried out in abdominal cases. In this particular instance the probability is, that during the enucleation of the tumour from between the layers of the broad ligament the rectum had been exposed, and that the glass drainage-tube had rested on the intestine, which gave way under pressure of the copious enema injudiciously administered.

There is little to be said about the treatment adopted throughout this case. Morphia and opium failed to quiet the patient, and, indeed, seemed to increase the excitement. Chloral and bromide of potassium appeared to do some good, but the doses had to be increased from time to time, as the

drugs seemed to lose their effect after a few days' use. Tincture of hyoscyamus was tried alone and in combination with the chloral and bromide mixture, and certainly soothed the patient when all else failed. Quinine in 20-grain doses, given by mouth or rectum, seldom failed to lower the temperature within two hours, and was invaluable in subduing the hyperpyrexia.

The question of stimulants is a vexed one, but in my opinion much good was done in this case by the discreet administration of alcohol. When the patient was at her worst I gave large quantities with undoubted benefit, and I feel certain that she owes her recovery in a great measure to this treatment, for the discharge from the abdominal wound was profuse, the emaciation rapid, and her exhaustion extreme. The first symptoms of mental disturbance appeared on the 11th day after the removal of the tumour, and the 3rd following the rupture of the intestine. Two days later the patient became maniacal and remained so for seven weeks, after which time she recovered her reason and made a rapid convalescence.

This was undoubtedly a case of acute mania, but the question may be asked, to what was the attack due?

The fact that insanity has frequently followed operations on the ovaries and uterus is abundantly proved. Keith, Tait, Bantock, Thornton, Meredith, Barwell, Cullingworth, and Dent have each met with one or more cases. Some of these recovered, others remained incurable, and a few died raving mad. In some of these instances the patients had shown decided symptoms of insanity before operation, and with these the subsequent attack was simply a recurrence; but with the others it was different, for up to the date of operation they had been perfectly sane and no history of insanity could be discovered in their families. In the case here recorded, beyond the fact that the patient's brother died from "abscess in the brain," there was no history of cerebral mischief. Her husband, however, assured me that for some time previous to the operation she had been in a very depressed state and frequently said "she would go mad and die in an asylum." This statement would seem to indicate that anticipation or anxiety prior to the operation may have had some influence in bringing on the attack. As exciting causes, shock after the operation, or alarm at the accident must not be overlooked.

It has been said that insanity may follow the administra-

tion of some anæsthetics, but I must confess that I have never seen a case of this kind, nor do I know of any instance where insanity has been induced in a patient who beforehand was perfectly sane, and in whose family history there was no evidence of madness. In the case under consideration the anæsthetic employed was ether.

The condition of the urine may have had something to do with the attack, but it must be remembered that the carboluria had passed off many days before the symptoms of insanity appeared, and, moreover, at no time was there a scarcity of urine, and only a trace of albumen was detected occasionally during the period of polyuria.

Mental disturbance due to absorption of iodoform is, I imagine, not of rare occurrence. I have seen three such cases where there was delirium, high temperature, and complete prostration. All the patients were in extreme danger, but recovered on the removal of the exciting cause. At the same time the mental symptoms never went beyond slight delirium.

Mr. Barwell, in a paper read before the Medical Society, has pointed out "that disturbance of the generative organs might possibly be a cause of insanity following such operations as ovariectomy and hysterectomy."

Mr. Dent, however, in a very able contribution to the "Journal of Mental Science," has clearly proved that insanity may follow herniotomy, amputations, dentistry, and has been frequently noticed after accidents. Mayo Robson has also mentioned a case of acute mania following the passage of a gall-stone. Hence it would seem that any operation may bring about an attack of mania or some form of insanity.

I am inclined to agree with Mr. Dent that many of the cases of insanity following abdominal operations, especially those cases where the symptoms have not immediately shown themselves, but appeared a week or two afterwards, are of septic origin, and are similar to those cases of puerperal insanity which are not infrequently met with in practice.

In the case just narrated, the septic condition of the patient, increased probably by absorption of faecal matter and gases subsequent to the rupture of the intestine, would seem to have been a potent factor in bringing about the maniacal attack, for the accident was soon followed by mental symptoms which culminated in acute mania.

Mrs. W. called on me in April, 1893. She is now a big stout woman in the best of health and spirits. The fæcal fistula has quite closed, but there is a ventral hernia which, however, does not cause her the slightest inconvenience. There has been no return of the mania, her mind is perfectly clear, and she shows no trace of any former mental trouble.

Acute Melancholia: Attempted Suicide by inserting a Needle into the Abdomen. Death nearly thirteen months after.
By G. M. P. BRAINE-HARTNELL, L.R.C.P.L., M.R.C.S.E.,
Senior Assistant Medical Officer to the Worcester County
and City Asylum.

I am indebted to the kindness of Dr. Cooke for permission to publish this case.

E. W., aged 40, married, admitted into the Worcester County Asylum on April 11th, 1891. This attack is stated to be the first, of seven weeks' duration. Cause assigned, ill-health.

On admission. The patient is a thin, anæmic looking woman. She has some superficial scratches on her abdomen and at the bend of the left elbow, said to have been self-inflicted with suicidal intent. Nothing abnormal in heart or lungs. No albumen in urine. Mentally she is suffering from acute melancholia; is extremely distressed and miserable. Says she cannot live. Refuses her food and is restless at night. Two or three days after admission she stated that she had run a needle into her abdomen before she left home with the object of taking her life. Careful examination failed to find any point of entrance. Her statements varied considerably as to where she had inserted it, and she sometimes denied having done so. There was no pain on pressure and no sign of peritonitis. On April 22nd a superficial abscess began to form in the upper part of the hypogastric region, in the middle line. Linseed meal poultices were applied and the patient kept in bed. Sulphonal, gr. xx., was ordered night and morning. On April 24th the abscess was opened, and about an ounce-and-a-half of pus escaped. The wound was well explored with the finger, but no trace of the needle could be discovered. The abscess cavity was syringed out with lot. acid. carb. (1-40), and a drainage tube inserted. Linseed meal poultices were applied over carbolic lint. In the evening her temperature rose to 100° F. Owing to her restless condition a nurse was placed with her night and day. On the 26th her temperature was 101° F. Belly swollen, tender, and tympanitic. Ordered chloral hydrate, gr. xxx., tinct. opii.,

on xx., night and morning. Her mind did not show any sign of improvement; she kept restless, distressed, and perverted in her habits. Tried to tear off the dressings. Required to be fed with her food. The wound continued to discharge, and her temperature was elevated for some time. The abdominal distension and tympanites gradually disappeared. She had some attacks of vomiting, which yielded to the ordinary remedies. She was worse mentally in the beginning of May; fighting the nurses and spitting at them, threw herself about and could only with great difficulty be kept in bed. On May 2nd the drainage tube was left out. The wound soon closed. On June 1st another swelling was noticed to the right and a little above the old opening. The swelling was poulticed, and in a few days opened in the old place and pus evacuated. Careful search was made for the presence of a needle without avail. The same mode of treatment was adopted. Her temperature rose to 103° F. By June 26th the wound was healed, her temperature normal, and she was up daily. She remained melancholic and very suicidally inclined. Refused her food, and was perverted in her habits and violent to those about her. She continued to complain of vague pains in her abdomen, not localized in any particular spot. She gained flesh and looked better. At the end of January, 1892, she had an attack of pneumonia at the right base, which, under treatment, cleared up to a certain extent, leaving a cough and general crepitations. Her temperature did not subside. In April there was albumen in her urine. Under the microscope, blood, pus, and epithelial cells were seen, but no casts. She was losing flesh and was considered to be suffering from phthisis. She complained of pain in the right flank, which was tender on palpitation. No tumour could be made out. Crepitations were audible over both lungs, principally the right one. During the last two or three days of her life her breathing was hurried, pulse quick and feeble, temperature elevated. She became unconscious and died on April 28th, 1892.

The post-mortem examination was made on April 29th. There was nothing of interest in the brain, except the presence of some tubercles and the marked asymmetry of the optic thalami. The right lung was intimately adherent to the chest wall and to the diaphragm. There was a small opening in the diaphragm, external to the psoas muscle, communicating with an abscess in the abdomen. The lung was one mass of fine tubercle. The bronchial glands were enlarged and caseous. The left lung was not so far advanced in tubercular disease. On opening the abdomen, the liver was noticed to be adherent to the parietes in the region of the gall bladder and on the right side to the ribs. It was also adherent to the transverse colon. There was a large abscess, bounded above by the diaphragm and inferior layer of the coronary ligament. It extended downwards over half the kidney, and laterally to the right free border of the liver, slightly turning

to the upper surface. On washing away the pus on the right edge of the liver a darning needle, about two-and-a-half inches long, was found partially embedded in the substance of the liver, point downwards in the long axis of the body. Tubercles were present in the kidneys and spleen. The abdominal glands were caseous and enlarged.

This case is interesting as showing the length of time a foreign body like a needle can be in the abdominal cavity without causing death. It was probably inserted in the middle line, and, after wandering about, found a resting-place in the liver, point downwards. The death was due to tubercular disease, apparently concurrent with the abscess set up by the irritation of the needle. Attention might be drawn to the little reliance that can be placed on the statement of lunatics, their apparent immunity from pain, and the slight symptoms often shown in serious illness. Great difficulty was experienced in deciding whether her statements were the outcome of delusions or not. Dr. Tate has recorded in the Journal of July, 1888, a somewhat similar case, only in his patient a hair-pin was used and death occurred sooner.

OCCASIONAL NOTES OF THE QUARTER.

*The Good Asylum Chaplain.**

The Good Asylum Chaplain realizeth the importance of the trust committed to his keeping; he entereth upon the office in no mercenary spirit, but with the primary object of "ministering to the mind diseased," so far as the exercise of his own special functions is likely to do good. The Good Chaplain hath a sympathetic nature—one which magnetically attracts the sorrowful and the depressed instead of repelling them. A minister without magnetic sympathy hath no business in an asylum; he hath chosen a vocation for which the very word is a misnomer, for he hath no call, and the sooner he findeth other work the better for him and for the patients. If for filthy lucre he retaineth his office while not in touch with the insane—perchance even disliking

* Some years ago a distinguished mental physician, the late Dr. Isaac Ray, of Philadelphia, wrote some admirable sketches of the "Good Superintendent," the "Good Matron," etc., but did not include the Chaplain for the simple reason that this officer is not essential to asylums in the United States. We venture to paint the portrait which Dr. Ray omitted to give—[Eds.]

his duties—he is a fraud. The Good Chaplain enjoyeth his work ; it is his daily joy ; he carrieth with him an atmosphere of hope and cheerfulness which tendeth to inspire those with whom he cometh in contact with renewed faith and confidence. The Good Chaplain hopeth all things when his ministrations seem to be useless, or even repelled. He knoweth the waywardness, the suspicion, the aversion which may mark the inmates of an asylum. He maketh allowance for their behaviour and seeming rudeness. He considereth their distress, and not the irritation which it causeth.

The Good Chaplain regardeth it as a fundamental axiom that the false beliefs or the sense of spiritual desertion and the fear of impending damnation are the indications of physical disease, and neither the work of the devil nor the expression of Divine wrath. He is no exorcist, not only because the seventy-second canon of the Church of England forbiddeth a clergyman to attempt exorcism unauthorized, but because he hath learnt to regard the lunatic as the victim, not of demoniacal possession, but of a pathological state. And yet in a truer and higher sense, the Good Chaplain striveth to exorcise the unhappy patient of his fears and terrors by his ghostly counsel and kindly words of comfort and cheer.

Another fundamental axiom with the Good Chaplain is the duty of loyalty to the Medical Superintendent. He realizeth that their common object is the welfare and encouragement of the patient, and that although they approach man's dual nature from different standpoints, there is no occasion to clash ; nay, more, that if they do clash there is great danger of the spiritual adviser doing a great deal more harm than good.

The Good Chaplain studieth the character and special circumstances of any patient to whom he may minister, and adapts his counsel thereto. For example, this might be materially and beneficially directed by his knowledge that intemperance had been an important factor in the causation of the attack of insanity.

The Good Chaplain in his sermons remembereth the peculiar class of persons whom he addresses, and escheweth all theological disputations ; he is simple in his language, loathes affectation, is earnest in the manner and consolatory in the matter of his discourse. A son of consolation and not a Boanerges is the fitting occupant of the asylum pulpit. Simple and uncontroversial preaching is, however, not to be

confounded with monotonous platitudes, which are not only a poor compliment to the more intelligent patients, but are intolerable to that portion of the auditory which consists of the staff of the asylum. The model Chaplain is not only good; he is also a reasonable being, and doth not fall into the mistake of supposing that his utterances must be on a level with the imbecile element in his congregation.

The Good Chaplain, thus realizing his responsible duties and the sacredness of his calling, is saved from the deadly apathy which clotheth the *bad* chaplain as with a garment, allowing him to perform his work in a formal, perfunctory manner, to the discredit of his cloth, the contempt of the staff, and the detriment of the unfortunate inmates of the institution in which he holds an office of which he is wholly unworthy.

From such asylum chaplains, good Lord deliver us!

American Superintendents of Asylums and Politics.

If on a change of Ministry in England the medical superintendents of asylums—Broadmoor, for instance—felt uneasy as to their continuance in office, and one here and there had this uneasiness unpleasantly emphasized by dismissal from the post, astonishment and indignation would be excited. Happily politics have nothing whatever to do with the retention of office by the head of an English asylum, but Dr. Dewey has found that this is not the case in America.

The Illinois State Journal remarks that “a noticeable feature is Governor Altgeld’s declaration that ‘I appointed in Dr. Dewey’s place Dr. Clevinger,’ when the law provides that these officers shall be appointed by the trustees, who alone have authority to make such appointments.”

A system which winks at dismissal from the post of asylum superintendent on political and not moral grounds, is keenly felt to be unjust and intolerable. With the affairs of other countries than our own we are not concerned, except so far as they involve injustice and wrong to the medical profession, and more particularly that branch of it which embraces psychological medicine. On this ground alone do we feel at liberty to criticise the action taken by the Governor of the State of Illinois in deposing, as he has done, Dr. Dewey from the office he had so efficiently and humanely filled as Medical Superintendent of the well-

known Kankakee Asylum, because of the political changes which have taken place in America in connection with the late Presidential Election. "The American Journal of Insanity" has protested in no uncertain tones against this proceeding. In our own country a similar protest has been entered in the columns of the "British Medical Journal." It seems to us an imperative duty to support our American colleagues in the action which, with certain discreditable exceptions, the medical press has taken in this affair.

The Kankakee Asylum has been a most important object lesson in demonstrating the advantages of detached houses for insane patients, in addition to the main building. The experiment has been carried out by Dr. Dewey in a most efficient manner, and his name will always be associated with this system. All who have known him and his work have formed the highest opinion of his devotion to duty. Yet this is the man who has been summarily dismissed from his post. Whether his successor is an able man or not does not in the least affect the question.

The criticism of the Governor of Illinois by the medical press has roused him to reply. His vindication does not in any degree remove the unfavourable impression which his unfair treatment of Dr. Dewey has produced. We judge of the truthfulness of his statements rebutting the charges brought against him, by the correctness of his reply when he observes:—"No doubt the Englishman who has just crossed the ocean and has been down and eaten some good dinners with Dr. Dewey, and has been shown over the institution under the good doctor's wing, can give us points not only on how to run charitable institutions, but on Republican Government in general. They generally do do this. Almost everyone of that class who come over here rides over the country in a palace-car, attends a few swell receptions, and is lionized in a few places, goes home, and writes a book on America. This particular Englishman seems to be an improvement on the rest of them in this, that he at least speaks well of his host while he is yet in this country. Some of the others who have preceded him had not politeness enough to wait until they got back across the water before they went to slandering the people in this country."

We have good reason to know that "the Englishman" had not "crossed the ocean" for some ten years. As to the doctor's good dinners, they must have been good indeed to exert so potent a spell so long afterwards.

Commenting upon an interview with the Governor of Illinois (who is a Democrat), the Illinois State Journal observes—"A careful reading of this remarkable interview will reveal some amazing declarations for a Governor to make. For instance, he says that he was prepared to show up the Kankakee Asylum in a bad light, but did not do so because the Democrats there were trying to get the asylum vote for the Democratic ticket, and to help them in this scheme he refrained from attacking the institution. In this connection the Governor says that the Democrats of Kankakee sometimes arranged with Dr. Dewey and the managers to get the vote of the asylum for the Democratic State officers, and yet the principal reason he gives for removing Dr. Dewey is that he ran the institution as a Republican machine, and that all the employés voted the Republican ticket."

It is stated in the same Journal that "the Governor's new trustees of the Kankakee Asylum, after thoroughly investigating the situation, came to the conclusion that the best interests of the institution required the retention of Dr. Dewey, and informed Governor Altgeld that they had decided to reappoint him, but were told very emphatically that they must appoint Dr. Clevinger, a Democrat, which they obediently proceeded to do."

It is alleged by Dr. Dewey himself, and we have no doubt with truth, that he kept the asylum free from politics, and that he deploras that it is now to be run on a political basis.*

The Inebriates Act.

The hope to which we gave expression in the last number of the "Journal of Mental Science" that the Inebriates Acts would, without further delay, be amended so as to render them really a deterrent and curative agent, is on the eve of full fruition. The Department Committee which the late Home Secretary, Mr. Henry Matthews, appointed to inquire

* Since the above was in type we have read with satisfaction the published letter of a supporter of the Democrats, and one who "took both pride and part in the elevation of Altgeld to the governorship." Dr. Riese, to whom we refer, writes—"I voice the sentiment of many Democrats when I say that had I anticipated the involvement of well-managed charitable institutions in the political upheaval, I would, perchance, have acted differently. The Governor's action in this matter is unjustifiable. The hospital at Kankakee deservedly took highest rank for its humane and conscientious management."—"The Tribune," April 22, 1893.

into the best mode of dealing with habitual drunkards, and which consisted of Mr. J. L. Wharton, M.P., as Chairman, and Sir William Hunter, M.P., Mr. Leigh Pemberton Assistant Under Secretary, Home Office, Mr. C. S. Murdoch, and Dr. David Nicolson, of Broadmoor, as members, has now presented its report, which proceeds substantially on the lines we foreshadowed in April, and Mr. Asquith, on whom the official mantle of Mr. Matthews has fallen, has undertaken the task of giving to its recommendations a legislative embodiment. The efficacy of the Inebriates Acts of 1879 and 1888, as all students of this interesting and important subject are aware, was paralyzed by five cardinal imperfections. The procedure by which habitual drunkards obtained admission to the retreats, whose establishment the Acts legalized and regulated, was absurdly complicated, and it was often found that before the two justices, whose presence the statutes required, could be brought together, the applicant's zeal for sequestration had oozed away. The procedure to secure the recapture of fugitives was equally cumbrous. There was no power of compulsory committal. The maximum period of detention (twelve calendar months) was in very many cases too short for the remedial treatment which was necessary, and the proprietors of licensed retreats were practically unable to enforce upon recalcitrant inmates the exercise, regular work, and submission to discipline which were essential to their cure. With each of these defects the Departmental Committee deal.

(I.) They propose that the Home Secretary should be empowered to make rules and settle the form of affidavits regulating the admission and re-admission of voluntary applicants to retreats, in addition to or in substitution for those prescribed in the schedule to the Habitual Drunkards Act, 1879. The Secretary of State is also to be enabled (with the concurrence of the Lord Chancellor) to make "rules regulating the length of period of detention, the procedure on applications for committal," the inspection of retreats, the release in proper cases of any inmate of a retreat before the period of his detention has expired, the recapture of fugitives, and the enforcement of more rigorous discipline in the case of refractory patients. While the Committee leave the definitive settlement of these points to the Home Secretary, they do not fail to throw out or refer to several useful suggestions which deserve Mr. Asquith's consideration. (1.) That circulars—

or perhaps we might without levity style them prospectuses—on the subject of the Inebriates Acts should be sent out to magistrates and other persons in official positions. (2.) That in place of the present cumbrous procedure, involving (a) appearance before two magistrates in the country, or a stipendiary, (b) the testimony of two witnesses, appearance before one magistrate, or a County Court Judge, should be sufficient, and that such appearance need not be in open court. (3.) That a power should be given, especially if compulsion be established, for the liberation of the patient on license before the expiration of the period of committal, if it appears that he has so profited by the discipline of the retreat that a cure could be reasonably reckoned upon; and (4) That the grounds of discharge under section 18 of the Act of 1879 should be confined to reasons *personal* to the patient.

In connection with this part of the case the Committee refer to an instance brought before them where a husband (a publican) succeeded by an application under section 18 of the Inebriates Act, 1879, in getting his wife removed for the purpose of assisting him in his business before the period of her detention had expired, with the result that she relapsed into drunkenness.

(II.) The positive recommendations of the Committee may be summarized as follows:—

(a.) The maximum period of detention should be raised to two years. This is a suggestion of whose value and utility no person acquainted with the working of the Acts of 1879 and 1888 needs to be convinced.

(b.) Power should be given for the compulsory committal to a retreat of persons coming within the definition of an habitual drunkard, as laid down in the Act of 1879, on the application of their relations or friends, or other persons interested in their welfare. Such application to be made to any Judge of the High Court, County Court Judge, Stipendiary Magistrate, or Justices sitting in Quarter or Petty Session, who shall decide on its propriety.

The property of the person committed should be liable for his maintenance, and that the order for committal should provide, when necessary, for the appointment of a trustee of the patient's estate during the period of committal, with power to apply the same towards the support of his wife or family.

Any order made for the compulsory committal of an

habitual drunkard should be subject to appeal to a Divisional Court.

The absolute necessity for the introduction of compulsory sequestration was clearly demonstrated by the Select Committee of 1872, of whose labours the Acts of 1879 and 1888 were the direct, though tardy and imperfect, result, and practically the only question which Mr. Matthews' Committee had to consider was how to reconcile compulsion with individual liberty. We are of opinion that the suggested procedure contains a satisfactory answer to this question. It should, however, be remembered by those on whose initiative the compulsory clauses in the new Inebriates Act will be put in motion that compulsion is intended to *supplement* and not to *replace* the present voluntary system. While we are dealing with this subject, it may also not be out of place to suggest that persons *bonâ fide* putting the new legislation in force should have, *mutatis mutandis*, the same protection that medical men now enjoy under the Lunacy Act, 1890. Mr. Matthews' Committee, however, properly went further afield than the mere text of the Inebriates Acts, and investigated the case of "habitual drunkards who come within the action of the criminal law, and are apprehended for and charged with drunkenness, whether accompanied with violence or not." With regard to this branch of their inquiry they recommend:—

(1.) That authority, as in section 25 of the Intoxicating Liquors (Ireland) Act, 1874 (37 and 38 Vict.. c. 69), should be given to the police to apprehend, without warrant, persons drunk and incapable in public highways, places, and buildings, and to detain such persons when their names and residences shall be unknown to the police and cannot be ascertained, until they can be brought before a magistrate, and thereby to carry out the provisions of section 12 of the Licensing Act, 1872 (35 and 36 Vict., c. 94), the first clause of which is reported to have become largely inoperative.

(2.) That additional powers should be given to magistrates to bind in sureties and recognizances for a considerable period habitual drunkards coming before them.

(3.) That reformatory institutions should be provided, aided by contributions from Imperial and local funds towards the cost of their building and maintenance (as in the case of existing reformatories and industrial institutions for juvenile offenders), for the reception and detention of criminal habitual drunkards who might be subjected to less

rigorous discipline than in existing prisons, and to the performance of such labour as may be prescribed.

(4.) That failing or pending the establishment of separate buildings for this class of criminals the existing accommodation in prisons, lunatic asylums, or poor-houses might be utilized for this purpose.

(5.) That magistrates should have the power to commit to such reformatory institutions for lengthened periods, with or without previous punishment of imprisonment, habitual drunkards (*a*) who come within the action of the criminal law; (*b*) who fail to find required sureties and recognizances; (*c*) who have been brought up for breach of such recognizances; (*d*) who are proved guilty of ill-treatment or neglect of their wives and families; (*e*) who have been convicted of drunkenness three or more times within the previous twelve months.

We welcome this Report, not only as an addition of permanent value to the literature of inebriety, but as an approximate solution of the very practical and instant problems to which inebriety gives rise. When the principle of compulsory seclusion has been permanently admitted, and the period of detention has been prolonged, we shall be many degrees nearer the legislative consideration of the doctrine of "release on cure"—the analogue of the doctrine of "indefinite punishments" which has so long been preached in Italy, and successfully reduced to practice at Elmira.

Townsend and the Test of Criminal Responsibility.

The trial of Townsend for threatening to shoot Mr. Gladstone throws a curious and not un instructive light on the English law as to the criminal responsibility of the insane. Judged by "the rules in MacNaghten's case," Townsend ought certainly to have been sent to penal servitude. He knew that the weapon which he had in his hand was a pistol, and that when loaded with powder and ball it was capable of taking human life. He was well aware that the act which he contemplated was wrong, and that he would probably have to expiate his crime (if completed) upon the scaffold. He was thus (according to the strict letter of the law, delivered by the judges to the House of Lords, and by the House of Lords back again to the judges and to the country) perfectly acquainted with "the nature and quality" of his

act. And yet he laboured under a degree of mental impairment which would have rendered his punishment a public scandal. The most curious circumstance in the whole case was the eloquence with which Mr. Justice Grantham, sublimely unconscious of the incongruity to which we have called attention, first laid down the rules in MacNaghten's case as undoubted law, and then practically proceeded to direct the jury to acquit the prisoner. The rules in MacNaghten's case are absurd in theory, but they may be manipulated with such ingenuity as to secure substantial justice in practice.

Townsend's brain was just one of those susceptible organs which assimilate inflammatory language and endeavour to carry it out in a literal sense.

Instruction for Teachers in Physiological Psychology.

The varying mental status of children and its connection with physical conditions has been carefully studied of late years, and has attracted some attention among those guiding public education. Science and the knowledge gained by observation is slowly but steadily affecting the minds of educationalists and those in charge of children. The school-master, under a strong pressure of cultivated opinion as well as from his own necessities, is becoming more inclined to join hands with the doctor as a scientific adviser, and our profession in its turn may well depart from a position of passive criticism and offer such training to teachers as may enable them to observe with some accuracy the varying conditions of their pupils, the indications of a wearied or disordered brain, and the signs of mental action which may serve as useful guidance in their training.

A stimulus to the study of practical psychology, from an educationist's point of view, has been given by the systematic record of observations in schools commenced in 1888 by a Committee of the British Medical Association, which resulted in a full report* on 50,000 children, prepared by Dr. Francis Warner, dealing with many educational problems of great importance. This work is being continued by a Committee appointed by the International Congress of Hygiene and Demography, 1891, who have issued a circular to the Universities, Training Colleges, and other educational bodies, drawing attention to the desirability of a systematic

* Published by Messrs. Swan Sonnenchein and Co.

course of lectures and practical instruction in the study of conditions leading to mental and moral status, and raising such studies to a more scientific level than in the past. We understand that suggestions as to such teaching will be gladly received by the Secretary of the Committee, Mr. E. W. Wallis, Parkes Museum. Various questions have been raised at various times which can only be settled by accurate scientific study, *e.g.*, effects of deficient training, effects of over mental training, the benefits or otherwise of high schools for girls, the increase of neurotic cases with advancing education.

The Report of the Royal Commission on the Blind was the first official recognition of a class of children "feeble mentally" without being imbecile; the recommendations for such children were founded upon evidence drawn from the school inquiry referred to, and following thereon the School Boards for London and Leicester have made special provision for feeble children; the matter is also under the consideration of the Local Government Board.

The London University grants a certificate in the art and science of teaching, and the question of degrees in this subject is being mooted. At the University of Cambridge, in Training Colleges, and at the College of Preceptors, lectures on mental science are given to those training as teachers; in our opinion it is highly desirable that "physiological psychology and the grouping and classification of children" should be incorporated as a part of such course. The subject needs to be cultivated as a practical science founded upon minute observation of visible facts with inference as to the neural action corresponding to the expression of mental states rather than as a purely metaphysical science. Teachers with the children ever about them as the material upon which they work may be trained to observe for themselves and to make inferences as to the lines upon which they should proceed with individual children as well as with groups of cases. Teachers are not always aware that nervous children are quick, gregarious, and imitative; they do not always differentiate the dull from the defective or know the relative effects of dealing with the child through eye and ear respectively, or the uses of physical exercises adapted to mental peculiarities, as in eye movements, regulation of muscular sense, and in increasing spontaneity rather than in suppressing it. All these matters are capable of scientific treatment, and the principles involved should be clearly explained to those training as teachers of the young.

THE ASYLUM CHAPLAIN'S COLUMN.

[We have received the following communication from the Chaplain of the Colney Hatch Asylum as the first contribution to what we hope will be a permanent feature of this Journal—the column set aside for the use of chaplains attached to asylums and hospitals for the insane.

In a circular addressed to these officers we have stated that:—"We have decided to introduce into the 'Journal of Mental Science' an Asylum Chaplain's Column. It is thought that the chaplains of asylums would be glad of this means of publicly expressing their views on any matter affecting the interests of the patients, so far as it falls within their province to consider them. We have reason to believe that chaplains will value this opportunity of communicating their opinions and wishes in regard to the office they hold. The Rev. Henry Hawkins has kindly undertaken to receive and arrange any matter falling under the proposed heading. All letters should, therefore, be addressed to him, Chaplain's House, Colney Hatch, N. It is unnecessary to say that the Editors reserve to themselves the right of admitting or returning any MS. forwarded for publication in the Asylum Column of the 'Journal of Mental Science.'"]

"Ut Cooperatores Simus."

Chaplains of asylums for the insane should feel indebted to you for your willingness to set apart a Chaplain's Column in your valuable quarterly, for subjects connected with their own special department of work. We chaplains are in a position of partial isolation, living at a distance from one another, and rarely meeting. The duties of the parochial clergy, our neighbours, differ in many respects from our own, and their experiences do not qualify them to supply the particular advice and counsels of which we may sometimes stand in need. The conditions under which they and ourselves carry on our ministerial work are not altogether analogous. As regards communication with one another through the Press, asylum chaplains are too few in number (*rari nantes*) to establish and support a periodical of their own. No doubt some of those already in existence would occasionally receive communications from chaplains on subjects relating to their own field of ministerial work. But

such topics would rarely interest the readers of an ordinary journal or magazine, and an Editor could not be expected to permit their frequent recurrence, so that your kind readiness to assign a limited space in your serial for the discussion of subjects bearing on the work of asylum chaplains deserves their respectful recognition. That small section of the "Journal" would, of course, like the bulk of its contents, be subject to the supervision of the Editors. There could not be "*imperium in imperio*." At the same time, the management would, no doubt, allow of as much freedom as could reasonably be granted in the treatment of subjects. They are numerous, and might profitably, from time to time, be brought under review. It may be allowable to indicate some of the topics about which chaplains might, with advantage, take counsel of one another, to the benefit of their own work and of those to whom they minister.

Questions would arise about the best methods of conducting, in their various details, the *chapel services*; about the most edifying *length* of Sunday and week-day prayers, and of sermons; about the frequency of Communion, and the selection, from among patients, of communicants; again, the results of experience with respect to the *influence* of religious services on the insane might be profitably noted; information on the subject of the admission of so-called *refractory patients* to public worship would be useful to many of us, as well as opinions whether this class, in our communities, should have separate religious services, or should be associated with others—different views are taken of this question; services for the staff or *household* might be appropriately discussed in a Chaplain's Column. Such intramural congregations, assembling, perhaps, late in the evening, after long hours of work, are differently circumstanced from evening congregations in parish churches. The composition of the *choir* again, whether consisting of members of the staff, male or female, or of patients, or of both associated, whether assisted in some cases by friends outside, might be communicated, with the probable result of the improvement of asylum choirs, which, in many cases, contribute greatly to the devotion and attractiveness of the services. It may be sufficient in this brief paper simply to enumerate *some* of the topics, which, by favour of the Editors of the Journal, might be from quarter to quarter discussed within the space considerably allotted. *Ward services* and general visitations, ministrations to clinics in infirmaries

and elsewhere, visits to "airing courts" (why not gardens?) affording opportunities of more private conversation of chaplains with patients.—*Correspondence* on behalf of patients with absent, often neglectful, friends, with very satisfactory results.—*Visiting days*, on which intercourse may be held with patients' relations and acquaintances, and much useful information obtained.—The chaplain's duties towards colleagues and other members of the staff.—*Variety of pulpit ministrations* by invitation to clergymen outside.—Introduction to friendless patients of visitors and correspondents. The subject of "*After-care*."—These are but some of the matters connected not only with a chaplain's department, but with the common good of the house, which may be allowed to come under review in the place kindly assigned by the Editors of the Journal.

P.S.—Opinions are respectfully invited, in the next issue of the "J.M.S.," on the subject of the limits of time within which, having regard to the circumstances of our congregations, Sunday and week-day services, respectively, should be comprised? and of the arrangements best calculated to combine the integrity of church worship with moderate duration?

H. H.

PART II.—REVIEWS.

Hereditary Genius. By FRANCIS GALTON, F.R.S. Second Edition. London: Macmillan. 1892.

The second edition of this important and laborious work has been published after the lapse of nearly a quarter of a century. Since its first appearance it has become possible to look at the matter dealt with from a somewhat different standpoint, to the attainment of which Mr. Galton has himself largely contributed. The author has, wisely, left his book as he wrote it, but he has added a prefatory chapter which is of considerable interest. In this chapter Mr. Galton makes two admissions which entirely disarm certain criticisms to which we have long felt that this book lay open. The first concerns the title. In using the word "Genius" Mr. Galton opened the way for some misapprehension which would have been quite avoided had he selected the title, which he now admits would have been better, of *Hereditary Ability*. "There was not," he tells us, "the slightest intention on my part to use the word 'genius' in any technical

sense, but merely as expressing an ability that was exceptionally high, and at the same time inborn." A genius in this sense is "a man endowed with superior faculties;" he is, in short, the "man of talent," who, by non-scientific persons, is always opposed to the "man of genius," so that, though Mr. Galton's use of the word "genius" is etymologically sound, it is certainly confusing. The second point concerns the relation of "genius in its technical sense" to insanity. As the book originally stood, there was no reference whatever to the abnormal psychology of genius. Any acknowledgment, indeed, of a morbid mental tendency in genius would seem alien to the spirit and argument of the book. Mr. Galton now remarks, in reference to the close relation between genius in its technical sense (whatever its precise definition may be) and insanity, which has been so strongly insisted on by Lombroso and others, that while he cannot accept entirely the data or the conclusions of those writers, "still, there is a large residuum of evidence which points to a painfully close relation between the two, and I must add that my own later observations have tended in the same direction, for I have been surprised at finding how often insanity, or idiocy, has appeared among the near relations of exceptionally able men. Those who are over-eager and extremely active in mind must often possess brains that are more excitable and peculiar than is consistent with soundness; they are likely to become crazy at times, and perhaps to break down altogether. Their inborn excitability and peculiarity may be expected to appear in some of their relatives also, but unaccompanied with an equal dose of preservative qualities, whatever they may be. Those relatives would be 'crank,' if not insane."

It seems clear that Mr. Galton's conclusions apply to a somewhat smaller and more special group of individuals than he had at the outset imagined. He finds the greatest amount of hereditary ability amongst the judges, and he acknowledges that poets come out very badly from this point of view. The English judicial bench is the very last place where we should expect to find a man of genius in the narrow and "technical" sense of the word; judicial functions offer no scope whatever for that originality which is certainly one of the most characteristic marks of genius, while a lawyer who displayed such originality would be sedulously avoided in the selection of a judge. Probably the only English judge who could by general agreement be said to

have possessed genius was Bacon, who did not owe his judicial position to his genius, and who, as a judge, was a lamentable failure. (It is perhaps worth noting that Bacon's mother, who belonged to a family possessing eminent ability, appears to have been insane, at all events in later life.) The poets form a very different group; here genius—with that aboriginal individuality of character which finds it difficult or impossible to follow recognized methods of thought—is in the long run the one thing that counts. From Mr. Galton's standpoint we should expect the very greatest men of genius to be surrounded by the largest number of eminent parents and brethren and children. As a matter of fact it is precisely the greatest men of genius—Socrates, Dante, Shakespeare, Newton, Goethe, etc. (Darwin is perhaps the most notable exception)—whose relations do not rise above mediocrity, and perhaps as often as not sink below it. Were Mr. Galton to re-write his book it is probable that he would now make some attempt to exclude men of genius in the narrower sense; he would be justified in this, and by so doing he would distinctly strengthen his argument. What he has really proved is that natural ability, coming short of genius, may be inherited or become a family possession; he has also proved, more indirectly, that genius in the special sense of the word is never inherited; he has not furnished a single instance in which genius has passed from father to son, nor are we able to supply such a case; that of the elder and younger Alexandre Dumas may perhaps form the nearest approximation.

Mr. Galton's book, valuable as it is, leaves untouched the study of the man of genius proper. This study has perhaps been too much in the hands of alienists like Lélut and Moreau and Lombroso, who have been biassed in favour of the belief that abnormal psychology is necessarily morbid psychology. It certainly does not follow that because genius has certain relationships to insanity, genius is itself a form of insanity. At present it is not possible to give a sound scientific definition of genius; it is probable that it will become possible when anthropologists and psychologists in the broadest sense have further worked at the matter. It is among the services rendered by Mr. Galton's book that it has largely helped to clear the field, and to render possible the precise psychological study of "genius in the technical sense."

Criminology. By ARTHUR MACDONALD. With an Introduction by Dr. CESARE LOMBROSO. New York: Funk and Wagnalls Co. 1893. Pp. 416.

This book is noteworthy as the first comprehensive attempt to deal with criminology from the modern point of view which has yet reached us from the United States. It is divided into three parts. The first is a condensed summary of a few of the results reached by European criminal anthropologists, and does not pretend to any originality; it occupies 116 pages. The second part is entitled "Special Criminology," and occupies 196 pages. The last part is a very full and useful bibliography of criminological literature, filling not less than 111 pages; in regard to this bibliography Mr. MacDonald acknowledges his indebtedness to the recent edition of Prof. Enrico Ferri's great work, "Sociologia Criminale." Part I. is the least original part of the book, and also the least satisfactory. It is scrappy and uncritical. We should have been glad to see some of the statements of European criminologists discussed from a shrewd if sympathetic American point of view, but there is nothing here but reproduction. For example, it is surely time that we heard the last of the criminality of insectivorous plants, which (following various European writers) Mr. MacDonald here sets forth in full, without a word of criticism. The "criminality" of a plant which absorbs an insect must, one imagines, be about on a level with that of a man who absorbs a potato, and must be infinitely less than that of a man who goes out of his way to eat oxen and sheep. It is an abuse of language to apply the term "criminal" to any organized life-giving process common to a whole species. A number of the so-called "crimes" of animals are in no legitimate sense crimes. A truly criminal act must be anti-social and of such a nature that it could not possibly be performed by the whole species. There have been very few careful or competent observations of crime in animals; the best that are known to us are contained in a paper "On Degeneration and Criminality among Carrier-Pigeons," in a recent number of the "Archivio di Psichiatria," by Muccioli, who is one of the chief Italian authorities on these birds, and has made careful and special study of their habits. He has found that true criminality and degeneration (including various sexual perversions) are

found among pigeons in a certain proportion of cases; there are some birds which this observer regards as genuine "instinctive criminals," and it is interesting to note that he is obliged to eliminate these from his flocks, as they are unsatisfactory as carriers, being less active and intelligent. Mr. MacDonald remarks that among savages crime is the rule, and proceeds to quote a number of practices which he regards as illustrations of this statement. A very large number of these are, however, practised by the whole tribe, and are for the good of the whole tribe; they are not anti-social. There is no reason whatever to suppose that criminality is more common among the savage than among the civilized. Part II. is the most original and interesting portion of the work; it contains the detailed histories of six criminals whom Mr. MacDonald studied as thoroughly and scientifically as circumstances permitted. He was allowed to be locked up with some of these criminals whom it was considered dangerous to allow out of their cells, and he reproduces his interviews with them. This is a useful if troublesome method, as it brings out very clearly the psychological peculiarities of the subject. We may add that Mr. MacDonald has pursued the same methods in a still more elaborate and interesting manner in the study of some cases of morbid sexuality now appearing in the "*Archives de l'Anthropologie Criminelle*;" these studies are illustrated by portraits, while in the present volume there is a complete absence of illustrations. It is to be regretted that misprints are extremely numerous.

Le Degenerazioni Psico-sessuali nella Vita degli individui e nella storia delle società. By SILVIO VENTURI. Turin: Bocca. 1892. Pp. 519.

Dr. Venturi, Director of Girifalco Asylum, who is well known as one of the most thoughtful and original of the younger Italian alienists, has in this book brought together many of his studies on insanity, and has allowed himself a somewhat free range. He is not altogether in sympathy with the tendencies of current psychiatry, and believes that it is impossible to study morbid psychology fruitfully except in close relation with the anthropological evolution of the individual as well as with social and historical conditions. He proposes a "natural classification" of abnormal mental conditions

(setting aside as of secondary importance the various transitory forms of mental balance): *immaturity of the mind or mental evolutive alienations* (the forms and degrees of imbecility); *senility of the mind or mental involutive alienations* (the forms and degrees of acquired insanities); and *monstrosity of the mind or mental alienations of varied degenerative nature* (criminality and genius, together with those psychopathic conditions which, in Dr. Venturi's opinion, sometimes serve as a basis to these conditions—epilepsy, hysteria, and immorality).

The book is somewhat discursive. The most interesting of the original observations recorded is probably the narrative of the author's experiments on the lines of Brown-Sequard's hypodermic injections of testicular fluid. The testicles chosen were those of rams and goats in a fresh condition, and four insane subjects were selected in various states of dementia and stupor. The general conditions, and the state of pulse, pupils, temperature, etc., were examined before and after the injections. The results were not constant in all the subjects, but on the whole a certain degree of vasomotor, mental, and especially emotional excitement was produced; there was no influence on the pupils, and no sexual effect. Dr. Venturi thinks it would be worth while to make further experiments. In the course of his investigations it occurred to him that if the testicular juice of rams and goats was productive of influence in human beings, human semen ought to have still greater influence. He, therefore, made a fresh series of experiments with human semen from a youthful and healthy subject, on five insane persons (four men and one woman) in conditions resembling those of the previous four. The semen was injected a quarter of an hour after emission, and was diluted with water. It cannot be said that there was any marked or constant improvement in the general condition of the patients, but a distinct nervous influence of the semen was shown by the constant and decided dilatation of the pupils produced, sometimes lasting for thirty-two hours. Control experiments were made with white of egg, the injection of which produced no effect whatever, nor did the injection of stale semen. Dr. Venturi suggests that semen may have a physiological effect on the nervous centres through the mucous membrane, and that this may possibly be connected with the therapeutic effects of marriage in certain cases of chlorosis and neurasthenia.

A considerable portion of the volume deals with the

author's investigations in the anthropometry of the insane; the general drift of his observations is that the physiological and anatomical characters of acquired insanity are mainly those of premature senility.

The book is largely concerned, as the title indicates, with the normal and pathological psychology of sexual evolution. It is impossible to summarize Dr. Venturi's numerous discussions on this subject. His opinions are frequently quite opposed to our English traditions; thus he regards masturbation as playing a normal and healthy part in sexual development, provided it is not continued beyond the period of youth; but the author expounds his views in a vigorous and suggestive manner which compels the reader's attention and respect, though it may not obtain his assent.

Antropologia e Pedagogia. Memoria del Dott. PAOLO RICCARDI. Parte Prima: Modena. 1892.

This is the first part of an introduction to the science of education by a well-known Italian anthropologist and psychologist, who has for some years been engaged in investigating the school-children of Modena and Bologna. With the help of the teachers Dr. Riccardi has collected 100,000 observations on 2,000 children, and in this first part he presents his psychological observations and sociological and statistical researches. Italian children, it is well known, are very frequently ill-fed and undeveloped; Dr. Riccardi brings out very clearly the superiority in all respects of the children belonging to the fairly well-to-do classes. His memoir, which will be of considerable importance when completed, is of interest to all who are occupied with the many-sided problem of the study and treatment of abnormal children.

Syphilis and the Nervous System. Revised Reprint of the Lettsomian Lectures for 1890. By W. R. GOWERS, M.D., F.R.C.P., F.R.S. London: J. and A. Churchill. 1892.

A reprint of these admirable lectures should be welcomed by all physicians as the evident production of a thoughtful and accomplished observer. Dr. Gowers simply desires to render more definite the knowledge that already exists on

the subject, but there is much originality here both in the matter and in the arrangement, and within the short compass of lectures we really find an extensive account of the relations of syphilis to the nervous system.

The importance of distinguishing between the specific and the simple changes due to syphilis is accentuated, especially in its bearing upon treatment. Diagnosis in itself cannot be overdone, justly says the author. Before beginning treatment one must accurately picture to one's self the changes that have taken place; remedies must then be well tried, but it is decidedly harmful to prolong their administration if no improvement occurs. It is the tissue-formation of syphilis, in its early stages, that we hope to remove, and in intra-cranial cases Dr. Gowers pins his faith upon iodide of potassium. As regards ultimate prognosis, the author says "there is no real evidence that syphilis ever is or ever has been cured;" we only remove some of its manifestations, hence the importance of warning the patient.

In syphilitic disease of the walls of the arteries it is so important to intervene promptly that Gowers dwells on some of the points of diagnosis. The most frequent syndroma in affections of the brain is hemiplegia from embolism of the middle cerebral artery, and the important points to notice in this connection are the frequency of premonitory symptoms, especially headache, the deliberate onset of hemiplegia unattended by loss of consciousness or convulsions in a patient between the ages of 25 and 45 unaffected by cardiac disease. When once the artery is blocked the evidence of therapeutics fails us. The unilateral paralytic symptoms occasionally observed in general paralysis of the insane may mislead us.

Gowers agrees with Erb and Marie in attributing a large share of the causation of tabes dorsalis to syphilis; 75 or 80 per cent. is not far from the real truth.

Among the limited but very important lesions arising from syphilis are mentioned the degenerative ocular palsies, simple atrophy of the optic nerve, and isolated loss of the light reflex of the iris.

We find in this book a very full *résumé* of our knowledge on the relations of syphilis to the nervous system.

The Germ-plasm: A Theory of Heredity. By AUGUST WEISMANN. Translated by W. NEWTON PARKER, Ph.D., and HARRIETT RÖUNFELDT, B.Sc. London: Walter Scott, Limited. 1893.

This work, dedicated by Professor Weismann to the memory of Charles Darwin, is a most valuable contribution to the scientific literature of the day, and the English translators are to be sincerely thanked for adding a masterpiece to the "Contemporary Science Series." To carry out consistently a mechanical theory of heredity is a gigantic task, and although the book has been and will be widely criticized, and probably much altered before its views are accepted generally, it stands at present as the best work on heredity, and a triumph of skill and erudition.

In order to explain the many and varied problems of heredity, Weismann finds it necessary to assume the existence of units of various degrees, the characteristics of which must be thoroughly grasped in order to understand the book. These are:

a. Biophors (Lebensträger) are the smallest units which exhibit the primary vital forces, viz., assimilation and metabolism, growth and multiplication by fission; they are groups of molecules, the bearers of the cell-qualities, and correspond almost exactly to the pangenes of de Vries. In addition, the biophors have a capacity of rearranging their molecules; the number of possible kinds is unlimited, and may depend on the varying number of their molecules. According to Weismann they must exist, and they constitute all protoplasm.

β. Determinants.—These are particles of the germ-plasm corresponding to and determining the hereditary parts or determinates, these being the cells or groups of cells which are independently variable from the germ onwards. The determinant is always a group of biophors, never a single one, and it is a vital unit of a higher order than the biophor.

γ. The next units (of the 3rd degree) are groups of determinants, formerly called ancestral germ-plasms, but now termed "*ids*" by Weismann; there are several or many in each idioplasm, and they are capable of growth and multiplication by division, *i.e.*, they also possess the fundamental vital properties.

δ. It is probable that the chromosomes of the nucleus, which Weismann proposes to call *idants*, are series or aggregations of ids, and that the ids correspond to the microsomata seen in certain animals, *e.g.*, *ascaris megalocephala*. These idants would be split longitudinally (and the ids halved) in division of the nucleus.

The *idioplasm* is the nuclear substance controlling any particular cell, and the *germ-plant* is the first autogenetic stage of the idioplasm of an animal or a plant. The ids are therefore the first units appreciated by means of the microscope.

In trying to elucidate further problems of heredity—regeneration, fission, dimorphism, etc.—Weismann has further to assume the existence of a hypothetical accessory idioplasm, supplementary determinants, and double determinants. We see how complicated his theory is, but it is difficult to conceive a simpler mode of explanation in presence of the facts requiring analysis.

Armed with these units, Weismann proceeds through many interesting pages to ingeniously unravel the deep mysteries of heredity, and after travelling with him through the intricate maze we can but express admiration for the power of his intellect and his logical acumen and scientific enthusiasm.

In the chapter on “formation of germ-cells” we find a clear exposition of the dogma of the continuity of the germ-plasm and the hypothesis of germ-tracks hinted at by the late Sir Richard Owen, and much in accordance with Galton’s views; and the author devotes his skill to refuting de Vries’ objections on the point, such as the power possessed by fungi and mosses of reproducing a new individual from any bit of the plant, which Weismann looks upon as an *adaptation* for ensuring the existence of a species surrounded by dangers of all kinds. Though opposed to the doctrine of epigenesis in heredity, he is a firm believer in Darwinism; thus he looks upon regeneration as a phenomenon of adaptation produced by natural selection, upon fission as originating from a capacity for regeneration. To explain “alternation of generations” in its relation to the idioplasm, the author is forced to the conclusion that there are two kinds of germ-plasm which continually pass simultaneously along the germ-tracks, and each of them becomes active in turn.

In the chapters on sexual reproduction we find fresh difficulties, owing to the complicated structure of the germ-

plasm. According to Weismann's theory, the individual is determined at the time of fertilization, and in no case can more than half of the idants of one parent be present in the germ-plasm of the fertilized egg-cell. The principles of the "struggle of the ids" and "reducing division" are discussed at length and introduced by the author to explain many of the facts observed.

The chapter on reversion is most important and admirably written.

As a rule Weismann touches but little upon the domain of pathology, but when discussing dimorphism he ventures upon an explanation of hæmophilia, assuming the existence of double determinants.

Xenia and infection of the germ, which the author calls "talagony," are quickly dismissed as doubtful phenomena, and probably arising from misconceptions.

As regards cases of idiocy and insanity arising from drunkenness in the father, he considers that they are due to an "affection of the germ by means of an external influence," but does not consider that drink modifies the process of heredity; and in the case of the transmission of diseases it is to be explained by a true infection of the germ-cell—*e.g.*, by the microbes of syphilis, and not as due to inheritance in the true sense of the word—that is from the transmission of an anomalous state of the germ-plasm itself.

In the last part of the book Weismann dwells upon the supposed transmission of acquired characters (or somatogenic characters)—the crux of the theory; for if we prove that acquired characters are really transmitted, his theory falls to the ground. With regard to Darwin's hypothesis of a circulation of gemmules, he says: "The process of the fission of the idioplasm in nuclear and cell-division seems to me directly and conclusively to refute the whole idea of the circulation of the gemmules." According to Weismann "All permanent—*i.e.*, hereditary—variations of the body proceed from primary modifications of the primary constituents of the germ, and neither injuries, functional hypertrophy, or atrophy, structural variations due to the effect of temperature or nutrition, nor any other influence of environment on the body can be communicated to the germ-cells and so become transmissible.

The facts observed in climatic variation in butterflies are rather in favour of his theory than against, and certainly are capable of clear explanation according to his hypothesis.

Finally is the chapter on variation. The author's contention is that although the two forms of amphotixis—namely, the conjugation of unicellular and the sexual reproduction of multicellular organisms—are means of producing variation, yet the *cause* of hereditary variation must lie deeper than this; "it must be due to the direct effect of external influences on the biophors and determinants." Minute fluctuations—imperceptible at first—occur in the elements of the germ-plasm; then greater deviations in consequence take place in the determinants, until we finally observe individual variations.

We have but touched on the most striking parts of the book, which must be a basis in all future work on heredity. To the philosopher, the biologist, the physician, it cannot but prove a source of the deepest interest. It is probably not too much to say that it is an epoch-making book, and worthy to rank with Darwin's "*Descent of Man*."

The Nationalization of Health. By HAVELOCK ELLIS. London: T. Fisher Unwin. 1892.

Mr. Ellis argues well in favour of the organization of health, the importance of which we must all recognize, and in the various chapters of this book makes successive attacks on the weak spots in our present system of prevention and cure of disease.

That much of our mortality is preventible no one can deny, and Mr. Ellis gives forcible instances in the chapters on typhoid fever, maternity, the diseases of the occupations, etc.; moreover, by systematic medical supervision, it would be easy to improve the eyesight and the teeth of our children. In a well-conditioned state we should soon have little or no infectious disease, little or no toxic disease, far fewer accidents, etc. At the same time, each individual of the community is, to a large extent, responsible for his own health and that of his offspring, and education of the people must of necessity be a great factor in the future in the maintenance of the health of the nation. We cannot by Act of Parliament compel a man to eat or drink so much, to marry such a wife, to avoid such and such a disease.

Mr. Ellis is a keen critic of the evils associated with the

present system of fighting disease; we all appreciate the drawbacks of general practice, the unsatisfactory system of dispensaries, and the weak spots in hospital administration; moreover, the infirmaries might be reorganized with much advantage. We might, perhaps, take exception to his reference to private practice as a system which is "based on the casual tinkering of disease;" the soundest therapist is not unfrequently a good all-round physician, and we hear a good deal about the evils of specialism, so that in all probability there is still a future for the competent general practitioner who can set a limb, diagnose a dislocation, a malignant tumour, recognize diphtheria, and carefully administer opium. Many general practitioners are ignorant owing to the laxity of certain examining boards, which enable them to "slip through their examinations" on a very small amount of knowledge, but the tendency is to turn out better men and to raise the standard.

Mr. Ellis has an ideal, in favour of which he argues ably and with force, but the practical reform of our health system is beset with great difficulties. The chapters on the now-called "preventible disease" are the most telling in the book, and it is in that direction that we anticipate the more immediate and useful results. We commend the book.

A New Psychology. An Aim at Universal Science. By the Rev. GEORGE JAMIESON, D.D. Edinburgh: Andrew Elliott. 1890.

To say that the author has set himself a gigantic task is no exaggeration, and one need not be surprised that in the endeavour to formulate a comprehensive theory he has to constantly cross swords with many eminent men who have preceded him in the search of the unknown. An attempt to clear away the mists which hang over heredity, evolution, vitality, etc., to formulate a science of mind, a science of causality, to discover the origin and foundation of matter, is so burdened with difficulties that we should not judge the author severely if he fails to convince; but we hasten to say at once that the Rev. Dr. Jamieson, though not convincing, is to be congratulated on having produced a thoughtful and able book, and on the ingenious exposition of his views.

The first chapter consists in a bold attempt to deal with the kernel of the problem—a philosophy of substance. We are all familiar with the ether of physicists; an investigation of the phenomena of light and heat and electricity leads many to conclude that such a substantial medium exists. This ether, which is capable of assuming all the conditions of matter, has the following characteristics, according to the author:—

1. It is the mother-substance out of which all qualities are derived.
2. It has the attribute of non-limitation, *e.g.*, in respect of extension.
3. It has the two inherent attributes belonging to primitive substance—quality and energy, both generic.
4. After obtaining conditions from a primordial condition, it assumes a separate existence—hence consciousness.

Further on he adds that, “upon the constitution of spirit-forms, there is a capacity in these of being transmuted into the crass forms of matter.”

The difficulty of conceiving a substance with such extensive attributes is to us enormous; but assuming its existence, the author goes on to speculation, “à tort et à travers,” and with much skill.

In the chapters devoted to the philosophy of mind with matter, the philosophy of the conditioned, and the philosophy of natural law, we find a discussion of the foundation of morals, free will, etc.

Absolute substance is a high-sounding word, and “mind-stuff” an unpretentious one; we are not sure that the latter is not the best to use in the present state of our knowledge.

Drunkenness. By GEORGE R. WILSON, M.B., C.M., Assistant Physician, The Royal Asylum, Morningside, Edinburgh. London: Swan Sonnenschein and Co. 1893.

This study of drunkenness, intended, Dr. Wilson tells us, more especially for the student of social science, is a valuable contribution to the subject.

Although alcoholism is, as a rule, a symptom of some nervous disease, it is so often such a pronounced one that it

may be said to constitute a disease in itself, and, like insanity and the infectious diseases, it calls for the earnest attention of both the physician and the legislator.

In the four chapters into which the book is divided, the author treats successively of the physiology, the pathology, the ætiology, and the therapeutics of alcoholism.

In the first chapter we find a lucid description of the effects of alcohol on the nervous system according as it affects the highest, the middle, or the lowest functional level; the symptoms generally appear in a given order, beginning with the highest level, which becomes more and more affected as intoxication proceeds; this order varies somewhat in certain individuals and with the kind of stimulant indulged in. When we consider the pathology we find very much the same sequence in the manifestations of the alcoholic state. There is a general deterioration of character coincident with dissolution of the highest level; lying is a prominent symptom and dementia generally the climax. The evidence of dissolution in the middle and lowest levels is seen in the tremors, incoordination of movements, perverted sensations, disorders of the muscular sense, etc.

Dr. Wilson then briefly refers to various forms of insanity with alcoholism as a symptom, and to the causation of insanity by alcohol. The classification is good, and the summary carefully drawn up.

The third chapter, on the ætiology of drunkenness, is perhaps the best in the book, and it is of course the most important, as we can do much more in this disease by prevention than cure. The characteristics of subjects predisposed to alcoholism are, according to Dr. Wilson:—

1. An unusual desire for stimulation (cerebral).
2. A palate which appreciates the first taste of alcohol.
3. A liability to be affected by small doses.
4. A fulminating or explosive (impulsive) mode of nervous action.

5. We notice an unusual order in the development of symptoms produced.

The conditions predisposing to alcohol are next discussed and their importance dwelt upon. The treatment of drunkenness is often a stumbling block, but if the early symptoms are observed we can often do much. In the case of children who are predisposed, we must remember that "the first duty to the child is to make him a good animal;"

up to the age of seven his nutrition must be all important; between the ages of seven and thirteen we must see to his motor development as well; and in the third period of development, *i.e.*, between the ages of thirteen and twenty-five, we must, in addition, cultivate his intellect; and it is best to forbid alcohol in these cases up to the age of twenty-five. Among the poor, as the author remarks, we cannot hope to do much in this direction at present.

During the alcoholic state we rely on dieting, sleep, exercise, and fresh air.

The moral treatment of drunkenness is most important, and Dr. Wilson's remarks on the subject are judicious and sound. We must endeavour to strengthen the internal control of the patient. Some primitive form of self-interest may act as a strong motive for abstinence—religion, love, family affection, etc.; each case must, therefore, be carefully studied. However, sooner or later, and in many cases, external control is needed, either by a firm companion, whose task, we may add, is most difficult and often a thankless one, or by placing the patient in a suitable home.

There are three proposals by which legislation may improve or to some extent remedy drunkenness. 1. Prohibition. 2. Improvement of the drink traffic. 3. Restricting the liberty of certain individuals. Opinions may differ with regard to prohibition, but all those who take an interest in the question of drunkenness will agree with us, we think, that the drink traffic ought to be improved in this country. Many think that the Gothenburg system has much to commend it. Finally, Dr. Wilson refers to the need for such acts as the "Habitual Drunkards Bill," and "The Restorative Homes Act;" undoubtedly it would be the saving of many drunkards and indirectly the means of preventing the ruin of many homes.

We hope the reading of this book will teach the community something of the nature of drunkenness and the way to tackle the problem practically; it is carefully written and methodically arranged.

Etat Mental des Hystériques: les Stigmates Mentaux. Par
PIERRE JANET, Professeur agrégé de philosophie au Collège
Rollin. Rueff et Cie. Paris. 1892.

M. Janet supports the opinion that hysteria is in the main a mental malady. He has enjoyed the advantage of studying the symptoms in the service of Professor Charcot, at the Salpêtrière. As would be expected by those acquainted with the author's writings, the work is philosophical in its character, but is also medical. He divides the study of the mental condition of the hysterical into two parts, the first being the analysis of the mental symptoms or stigmata, the second an examination of the accidental mental phenomena of hysteria. The former only is treated of in these pages; the latter is reserved for a future publication, to which we shall look forward with interest.

Chapter I. treats of hysterical anæsthesia. This subject has rarely, if ever, been so carefully studied. We have a classification into systematized, localized, and general. Hysterical anæsthesia, whatever form it may assume, has characters peculiar to itself. Whether systematized or localized, it undoubtedly depends upon the patient's own subjective ideas rather than upon the anatomy of the part affected. When general there is very slight modification of functions, frequently none. In short, the distinction is very great between hysterical and organic anæsthesia. The following points are especially noted under the mobility of anæsthesia. Hysterical attacks modify considerably the distribution of sensibility; sometimes it is restored. During natural sleep tactile anæsthesia often disappears; thus a patient with left hemianæsthesia, when pinched on the left side during sleep, groans, and calls out, "You pinch me; it is cruel," etc. Insensibility is more or less removed by certain intoxications, which induce temporary excitement, or states resembling sleep. There are, as is well-known, numerous changes in sensibility during artificial somnambulism. A person's sensibility may alter even when awake. The effect of electricity in establishing sensation when lost is instanced, as also the effect of magnets, etc. Very important is the influence of suggestion, although, as pointed out, it frequently fails. Again, vivid emotions and absence of mind increase anæsthesia. M. Janet especially notes the effect of

attention. With the hysterical it is difficult to fix or direct it. Rapid changes in sensation render observations difficult. Further, the phenomena are often contradictory. The observations on unilateral amaurosis are critical and important. They prove that "hysterical anæsthesia not only changes from moment to moment, but even at the same instant varies, and is manifested by contradictory phenomena according to the mode in which the subject is interrogated." We may record the following formula: "Anæsthesia is a very great and perpetual distraction, which renders its subjects unable to connect certain sensations with their personality; it is a narrowing of the field of consciousness" (p. 44). The two principal opinions upon which M. Janet's view rests are:—First, the conception of elementary sensations, real from a psychological point of view, but not related to personal consciousness; and secondly, the conception of a weakness and indifference, in consequence of which the subject ceases to interest himself in his sensations, or indeed to perceive them. We must realize the importance of sub-conscious sensations. External movements indicate sensations, the simplest being reflex acts. We usually regard most of these as organic in character, independent of mind. There are complex movements, which can only be explained on the supposition of there being a true sensation, and M. Janet instances cataleptic attitudes. The sum of the conclusions arrived at by M. Janet may be thus expressed. Hysterical anæsthesia does not seem to be an organic malady, *i.e.*, a disease of the nerves or the lower centres, but a mental disorder. It is not situated in the limbs or in the cord, or in the basal ganglia, but in the mind—that is to say, the highest functions of the brain.

(*To be continued.*)

Evolution and Man's Place in Nature. By HENRY CALDERWOOD, LL.D., F.R.S.E. London: Macmillan and Co., and New York. 1893.

We have on a former occasion reviewed in favourable terms a work written by the accomplished Professor of Moral Philosophy in the University of Edinburgh.*

* "The Relations of Mind and Brain." 'Journal of Mental Science,' 1880, p. 76.

There can be little doubt that a demand exists for a treatise on the relation between the doctrine of evolution and religious belief, or, at any rate, a calm statement of the evidence in support of the former and a dispassionate discussion of the great problem of man's place in nature. "The main objects are to trace the evidence of man's relation to the continuity of life on the earth, and to describe the distinctive characteristics of human life itself" (*Preface*).

The author gives a careful description of the accumulative proofs in favour of the theory of evolution. Of course, Prof. Calderwood is indebted to the investigations and writings of original observers, but the authors depended upon are acknowledged authorities, Darwin, Wallace, Spencer, Huxley, etc. We may pass over the greater portion of the volume which is descriptive, and seize the prominent feature of the work which grapples with the question of how biology is placed, in view of the facts set forth in favour of evolution. It is admitted that man belongs to Nature, but it is denied by the author that this includes his intelligent activity; in other words, the science of mind overlaps that of biology. The writer, therefore, contends that the doctrine of evolution is insufficient to explain everything. It suffices as a scheme of organic evolution, but it is inadequate to explain the activity of a rational being. The bearing of evolution on responsibility is elaborately studied. He is careful to explain that it is beyond his province to examine Christianity as a supernatural religion, except so far as it is a spiritual force aiding the progress of mankind.

Thus it is strongly insisted upon, and it is repeated again and again, that man, and man alone, although confessedly subject to the laws of growth and nutriment, moves in a world of being to which they do not apply. This separate world is then the rational life. The biological unity between man and the lower animals is broken, so that while it is granted that life, even in man, is dependent upon environment, his rational life is not so, nor is it ruled by sensibility. Man alone is self-regulated.

At first sight nothing, it would seem, could be stronger than the following admission:—

"The boundaries of animal life include man. The beginnings of organic life in the egg, the stages of progress in embryonic history, animal activity depending on sensory

nerves, brain, and motor nerves, and even dependence on environment, all hold as to man" (p. 263).

The author, however, holds, as we see, that, in contrast with this animal life of man, there are manifestations which indicate a distinct and self-regulated life. Passing from embryonic life, in which it is admitted that there may be no radical difference between ape and man, Prof. Calderwood finds in mature life a rational guidance of man's physical existence. Even the passions are in their nature just what they are in other animals. The restraining power, the proprieties, in short, the will, are peculiar to man. It is true that for the human brain no claim is made for any functions which the cerebrum of the ox does not possess. But "to know, to consider, to plan for the future, to shape a purpose for immediate action, and to execute it in word or deed," are functions which belong to no other being on earth. The author maintains that to assert that this realm of "mind" falls within that of organic activity—therefore brain—is to contradict evidence to the contrary (p. 267).

Clearly the crucial question is the difference between man and brute. A more complex organism? The ability of biology to present a science of human life? No, is the reply to both questions. It is pointed out that modern discoveries in regard to the functions of the brain leave no room for the complicated activities of reflective life. Is it conceivable that all the glorious mental attributes of a Shakespeare or a Milton could find their material organism in the residuary brain substance left after all the motor and sensory centres have been provided for? This demonstrates the insufficiency of any theory of evolution in vogue, for that which has been evolved is a material structure altogether inadequate for the purpose. What remains is "a poor living-place, every day being narrowed, to the extreme discomfort of the tenant" (p. 279).

This is forcibly put, and it is, perhaps, the strongest argument employed in support of the author's contention. If it be said, in reply, that the very highest mental and moral faculties may be affected or suspended by injury to the brain, Prof. Calderwood would say that it is only the instrument employed by the mechanic—the organ used by the rational being outside the organism—which is disordered. It is admitted by the highest authorities that mind and

brain are not identical; that we are unable to conceive the link which connects them or the boundary line by which they are separated. The late Dr. James Anderson, whose premature death we have had so recently to deplore, was accustomed to lay stress upon this admission, as leaving the door open to a belief in men's continued existence, in spite of the dissolution of his brain.

Prof. Calderwood would be satisfied, we imagine, to allow the argument to rest here, and to leave to others the task of building up any system of theosophy which can be erected upon it.

The author must, however, be allowed to speak for himself.

"Little more remains to be said, as we contemplate for a moment life's close, on coming towards the gates of death. Around this closing moment all life's mysteries gather in most impressive forms. Nowhere does man more deeply feel how ignorant he is; how uncertain as to what the future may contain. This is a moment which must terminate our relations with Nature; a moment when we shall take our first glance on a destiny implied in our moral life here. Faith and ignorance may then meet in undisturbed companionship; faith guiding through ignorance into a larger knowledge" (p. 331). Again, "There is a power operating continually in Nature, which does not come within range of the observation possible to scientific modes and appliances, yet to which science is ever indirectly bearing witness. This power has manifested itself at the most impressive periods in the world's history, first at the appearance of organic life, again on the appearance of mind, and again in the advent of rational life. . . . This power is no *deus ex machinâ*." The author does not accept a God dwelling apart from Nature, but maintains that there must be "a God immanent in Nature—immanent, yet transcendent—transcendent, yet immanent. The representation which would place the infinite being 'afar off,' as if he dwelt apart from creation, is alien to scientific knowledge, inconsistent with the records of natural history, at variance even with the conditions of rational life. . . . Of Nature, as interpreted by science, there is no other key than is found in recognition of an immanent and intelligent cause, in the midst of all, and concerned with all, that belongs to the history of being. This is the first cause—the eternal personality—related to the spiritual life of rational souls, as

He can be related to no other type of existence within the wide sphere of creation" (p. 342).

We can commend the spirit in which this thoughtful book is written, although we are alive to the difficulties in the way of accepting the author's conclusions. We have indicated his strongest arguments, and if asked which are the weakest, we should reply, those having reference to man's "consciousness." Here there is evidence of a lack of acquaintance with mental physiology.

Protestant Hospital for the Insane, Montreal. Annual Report for the Year 1892.

Interest will always attach to this institution from the circumstances under which it was established. It marked an important movement forward in the humane treatment of the insane in the province of Quebec. Its success depended, in a large measure, upon the appointment of the superintendent. Fortunately, Dr. Burgess was elected. The Report before us is a proof of the excellence of the choice made for the post, and the efficient manner in which he has carried out his duties.

Since the opening of the hospital six years ago, 377 patients have been admitted. Of these 23 were congenital cases. In regard to the number of attacks, 223 were first attacks, 58 second, 23 third, 8 fourth, 4 fifth; 38 were unascertained. Since the opening of the hospital 148 patients have been discharged, of whom 98 have recovered, or 25.9 per cent. of the admissions. There does not appear to be a record of the number of deaths during this period. We would venture to suggest that the statistical tables admit of improvement. There is no distinction between "persons" and *cases*; no percentages are given, and readmissions are not separated from admissions. It would be a great advantage to present in one table the admissions, recoveries, deaths, etc., which have occurred during the period the asylum has been in operation—a table, in fact, corresponding to No. 2 of the tables of the Medico-Psychological Association. As the institution has been opened for so short a time, it would be extremely easy to add No. 2A. We not only require to know how many

recoveries have occurred, but how many patients have relapsed and re-recovered.

In his interesting report, Dr. Burgess very properly objects to the veto put by the law in force in the Province upon voluntary admissions. "Few superintendents but at some time have had persons come to them, at their own accord, praying to be taken in, and there are few more painful duties than to have to refuse such prayers. Sometimes it is the premonitory symptoms of a recurring attack, sometimes the preliminary signs, such as insomnia and lowness of spirits, of a first onset that lead to the application. These cases are on the border-line of insanity. They are not yet insane, but there is every likelihood of their soon becoming so, and they would in most cases be benefited by a course of hospital treatment, to which they are quite capable of giving voluntary assent." We hope to learn in a future report that this absurd and mischievous restriction has been removed.

We wish every success to this well-conducted institution. May the present medical superintendent be spared many years to preside over it!

Carl Westphal's Gesammelte Abhandlungen. Edited by Dr. A. WESTPHAL. Two volumes. Berlin, 1892. August Hirschwald.

It is with very great pleasure that we welcome the publication of the collected works of the late illustrious Westphal, which have been brought together in two large volumes by his son, Dr. A. Westphal. The amount of work which the late Professor achieved for neurological and mental science was quite prodigious, and will be better understood when it is stated that the first volume contains 580 pages, and the second over 800 pages of original papers and descriptions of cases.

The first volume is devoted to mental diseases, and contains papers on the relations of *tabes dorsalis* to general paralysis of the insane; on observations on epileptiform and apoplectic fits of paralytic mental diseases; on progressive paralysis of all the ocular muscles in mental

diseases; on agoraphobia; followed by short papers on subjects such as periodic mania; dipsomania, with autopsy, showing multiple tumours in cerebral dura mater, softening and hæmorrhage in the pons; hypochondriasis in a child aged 12; a case of theft, with a peculiar form of dementia with thrombosis of the basilar artery and the right Sylvian artery, chronic meningitis of the cerebral convexity.

The volume is completed by four medico-legal judgments in insane cases, speeches, and reports.

In the second volume, on neuro-pathological work, are contained the papers which are the most original, and on subjects so familiar to all neurologists. The first section is on Disease of the brain with pathological lesions, and contains papers on syphilis of the brain; on cysticerci and echinococci of the brain; a case of tumour in the left middle cerebellar peduncle, causing bilateral deafness and left hemiparesis; two cases of tumour of the hemisphere; on the localization of unilateral convulsions and hemianopsia; and a case of tumour in the left temporal region without aphasia in a left-handed person.

The second section is devoted to diseases of the spinal cord and other communications in the domain of neuropathology, and contains no less than 46 different papers. As it would not be possible to give even the titles of all these, we can best give an indication of the matter contained in them by saying that in the first place the history of the so-called "tendon-reflexes" can be traced in these papers, as in 1875, Professor Westphal first described the "phenomenal movement produced by mechanical action on tendons and muscles," and which he states he had first observed in a patient in 1871. This seems to have been his first paper on the tendon reflexes in hemiplegia, and it is interesting to note that Professor Erb published independently in the same year his observation of the same phenomenon. This was followed in 1877 by a paper on the patella-tendon reflex and nerve-stretching, in which it was shown that stretching the crural nerve in the rabbit abolished the reflex.

In 1878 was published the article on a subject with which Westphal's name will ever be associated, viz., the loss of patella-tendon reflex in tabes dorsalis, a symptom which more than any other has facilitated the diagnosis of this

disease, and which is here described as an early symptom of tabes dorsalis. This was followed by a paper in 1881 on the disappearance and the localization of the knee-phenomenon, and in the next year by one on a source of error in observing the knee-phenomenon.

In 1886 was published the paper on persistence of the knee-phenomenon with degeneration of the posterior columns, in which it was shown that the knee-jerk was not lost unless the posterior root zone was involved in the disease, and the same point was borne out by another case, with autopsy, of failure of the knee-jerk on one side only.

Amongst other papers are the relation of syphilis to tabes dorsalis, on nerve-stretching in tabes, joint diseases in tabes; on a form of paradoxical contraction of muscles; on combined disease (lateral and posterior columns) of the cord; two papers on syringomyelia, one of which was published in "Brain;" on multiple sclerosis in two boys; two papers on paralysis agitans; on two cases of Thomsen's disease; on some cases of muscular atrophy, involving the face muscles; and on two sisters, with pseudo-hypertrophy of muscles.

Altogether there are in the first volume 28 papers, and in the second volume, on neurological work, no less than 56 papers, and the variety of subjects treated on is shown by the list described above. It will thus be seen that the two volumes give some idea of the untiring energy and profound clinical observation of the author, and they will remain for all ages as a perpetual monument to the genius of the illustrious Westphal.

Those who, like the writer, have had the good fortune to work with the late Professor, will always cherish the most pleasing memories of the extreme kindness which they received from him in going round the wards of the Charité Hospital. The exhaustive examination which he there gave to the most minute details of every case furnished a lesson in exact observation which those who witnessed will never forget.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Pathological Retrospect.*

By EDWIN GOODALL, M.D.Lond., B.S., M.R.C.P., West Riding Asylum, Wakefield.

The subjoined scheme, drawn up by the writer eighteen months since, has been put to practical test at the West Riding Asylum during that time, and found to answer its purpose. Several practical suggestions made by Dr. C. H. Bond, Pathologist at Banstead Asylum, have been incorporated with it, and are here acknowledged. The corresponding scheme for the spinal cord it is proposed to give in a later number.

EXAMINATION OF BRAIN AND COVERINGS.

Examination hours p.m.

Temp. Room.

Atmosphere: Humidity of $\begin{cases} \text{more.} \\ \text{less.} \\ \text{usual.} \end{cases}$

SCALP—Anomalies or Lesions of.

SKULL-CAP (sawn at fixed level, *e.g.*,
3 centim. above root of nose).

Thickened or thinned.

If alteration, gen., local.

Translucency, degree of.

Diploë at cut surface.

Amount.

Colour (vascularity).

Meshes open or filled up (incr.
density).

Hard or soft.

If alteration, gen., local.

Pachionian indentations.

Size.

Depth.

More or less numerous.

Bosses or Spicules from Inner Table.

New Layering of Inner Table.

Bosses from Outer Table.

Colour (vascularity).

Symmetry.

Weight.

Caries of bone.

Any lesion not coming under above.

Measurements.*

a. Diameters.

Antero-posterior.

Transverse

(Others if time permits).

b. Circumferences.

Antero-posterior.

SKULL-CAP (*continued*)

Transverse.

Horizontal.

BASE OF SKULL.

Any lesion of, esp. caries.

Symmetry.

State of palate.

MEMBRANES.

a. Dura Mater and processes of.

Adherent to skull-cap.

Extent of adhesion.

Site

Degree " "

Tense $\begin{cases} \text{normally.} \\ \text{unduly.} \end{cases}$

Flaccid (wrinkled).

Thickened or thinned.

If alteration, gen., local.

Colour (vascularity).

Any local congestion.

Adherent to arachnoid.

Undue amt. subdural fluid.

Quality of

Semi-gelatinous, lymph-flakes.

Cysts.

Blood-effusion or new formation
on inner surface: N.E. cha-
racters of.

Bony deposits in.

Sinuses of.

Capacity.

Contents.

* According to directions given by Topinard ("Anthropology").

MEMBRANES (*continued*)

Lining-membrane.

Undue adhesion to base of skull.

Any lesion not coming under above.

b. Arachnoid (at parts distinct from pia).

Undue granulation of outer surface.

State of Pacchionians.

Undue opacity (esp. white spots and patches, indicative of thickening).

Site of.

Degree of.

Swollen, gelatinous (site).

Blood-effusion in connection with (site).

Sub-arachnoid fluid: quantity: any notable alteration in quality.

Any lesion not coming under above.

c. Lepto-meninges.

Undue opacity.

Site of.

Degree of.

Normal tenuity, or

Swollen, gelatinous.

Gen., local.

Vascularity: excessive, or pallor.

Gen., local.

Blood-effusion: site.

Adhesion to cortex.

Extent, site of adhesion.

Strength of adhesion.

If no adhesion, how does pia strip from all parts: normally, or in sheets.

Any adhesion between hemispheres.

Any lesion not coming under above.

CEREBRUM.

Size.

Average.

Small.

Large.

Diminution in size of individual lobes.

Consistence.

a. Indications of gen. diminution of.

(i.) On superficial inspection.

Collapsed state of hemispheres.

Undue separation of hemispheres.

CEREBRUM (*continued*).

Laceration of corpus callosum.

Gaping sulci.

Etc.

(ii.) On Palpitation.

b. Firmness of C. as a whole, average, or increased [degree of increase].

Undue surface-greasiness.

Grey Matter and Gyri.

Diminished consistence (flabby, yielding too readily to pressure, etc.).

General.

Local: old, recent (tint).

Firmness average.

Sclerotic changes, with site.

Arrangement main gyri.

Degree of convolution.

Atrophy of gyri.

General (state of sulci).

Local (convolutions sunken below gen. level anywhere).

Colour (vascularity), on surface and section: any patchiness of colour.

Blood-extravasation: site.

Erosion from stripping pia: site.

Cheesy, chalky nodules, or other focal lesions: seat.

White Matter.

Consistence: average possibly increased.

Diminished	{	Tested by touch, water-stream, section: does subst. cling to knife?
Gen., local		

Colour (vascularity).

State if local alterations.

Vessels coarse, bristly.

Blood-extrav.: seat.

Edema (slighter degrees shown by brilliance of exposed surface).

Undue porosity (*état criblé*).

Indicative of atrophy.

Sclerosis: seat.

Scars, cysts, nodules, or other focal lesions: seat.

Any recent softening about these.

Other lesions not coming under above.

Basal Ganglia and Capsules.

Size (of ganglia) any shrinkage laterally (atrophy).

Consistence.

If softening: seat.

If sclerosis ,,

CEREBRUM (continued)

Colour (vascularity).
 Blood-extrav.: seat.
 Scars, cysts, nodules, or other focal lesions: seat.
 Etat criblé (of ganglia).
 Other lesions, not coming under above.

Ventricles (lateral and third).

Dilated.
 Excess of fluid.
 Appearance of fluid removed by pipette.
 (More precise examination in special cases if desirable.)

State of ependyma.

Granular, thickened, macerated.
 Anomalies of cornua.

Consistence of fornix, white and grey commissures, septum lucidum.

Abnormalities of choroid plexuses and

Velum interpositum.

Congestion, exudation in, cysts, etc.

Other lesions not coming under above.

Corpora Quadrigemina, state of.

PONS AND MEDULLA.**Size.**

If diminution, gen., local (incl. unilateral).

Consistence.

If diminution, gen., local.

Colour (vascularity).

Blood-extrav.: seat.

Ependyma of fourth ventricle.

Does pia strip normally.

PONS AND MEDULLA (continued)

Other lesions not coming under above.

BASE OF CEREBRUM.

Main vessels at base.

Relative size of corresponding ones.

Arrangement.

Atheroma.

Occlusion.

Cerebral peduncles.

„ nerve-roots: optic tracts.

Pituitary body.

Other lesions not coming under above.

CEREBELLUM.**Size.**

If diminution, gen., local (incl. unilateral).

Consistence.

Normal.

Softening: gen., local.

Sclerosis: seat.

Colour (vascularity) of grey and white matter.

Blood-extrav.: seat.

Corpora dentata.

Does Pia strip normally.

Other lesions (as growth) not coming under above.

Weights.*

Whole Brain.

Right Hemisphere.

Left

Pons, Medulla, and Corp. Quadrigemina together.

Cerebellum.

Amount of Fluid collected.

Lysol as a Preservative.—The writer's attention was first drawn to lysol by an article in "Zeitschr. f. Hygiene," 10 Band, 2 Heft, 1891, by V. Gerlach, who there demonstrates its strong antiseptic power. He appears to use solutions varying in strength from 1-5 per cent. Lysol is composed of tar-oils which have been rendered soluble in water by special treatment. That used by the present writer is a dark-brown fluid, with an odour at once suggestive of its origin. A $1\frac{1}{2}$ per cent. solution is made with distilled water; a little agitation produces a clear fluid with a yellow tint. In this strength lysol has been employed tentatively in the laboratory of this asylum as a preservative of fresh tissues. It has been found to prevent decomposition altogether. Relatively speaking, the odour is preserved well (fading of the blood-tint in notable degree

* And of individual lobes if desired.

appears unavoidable, whatever the preservative medium employed). Tissues acquire an unnatural translucency; this is a disadvantage which applies to lysol. Recently Dr. Hime, of Bradford, showed the writer the intestines and portions of other viscera from a case of cholera. These had been in lysol 1 per cent. several weeks; they were quite sweet, and presented an almost natural appearance. Lysol may be set down as non-poisonous in the strength recommended ($1\frac{1}{2}$ per cent.), and its odour (like that of creolin) would probably be agreeable to most people—properties which may be accounted advantageous where occasional handling of preparations is necessary. It may be mentioned that a one per cent. solution serves to disinfect the hands entirely, according to Gerlach.

Thoma's Preservative Fluid.—This was brought to the writer's notice by Dr. Alex. Bruce. It is to be recommended for the preservation of the natural colour of organs. Thoma uses two fluids, apparently indifferently. Fluid A is the one employed here, though for no special reason. The formulæ are as follows:—

			A.	B.
Crystals of Sulphate of Soda	...	...	100 grammes	60 grammes.
Chloride of Sodium	...	...	100 "	100 "
Chloride of Potassium	...	...	100 "	100 "
Nitrate of Potash	...	...	10 "	10 "
Water	...	...	1 litre	1 litre

Tissues are washed as little as possible at the autopsy. Large organs, such as liver and enlarged spleen, should be cut into slices of the thickness of a finger. All pieces or organs should be hung up in the fluid, so that opposite surfaces do not touch. After 18-24 hours in A or B brush off any blood on the surface, and place in spirit, which should be changed once or twice.

Gravitz's Preservative Fluid (for fresh preparations).—This has been in use some time, but as the formula does not appear to be very accessible. It is given here:—Common salt, 150 grm.; sugar, 40 grm.; saltpetre, 20 grm.; water, one litre. Add three per cent. boracic acid, or some tartaric acid, until the solution is acid.

Fresh preparations are placed in the above solution, and then this fluid is diluted with water until the preparations sink. Replace by fresh fluid in 4-8 weeks.

Giacomini's Process for Preserving Brain.—This process, the reputation of which is well established, is referred to here, not with the object of detailed description (for this see Lee's "Microtomist's Vade-Mecum,") but simply to lay stress upon one or two practical points. Book-teaching is to the effect that the brain should be left in sat. aqu. sol. chloride of zinc for five days or so. Here the zinc is employed for a much longer period, from 4-6 months, because shrivelling of the surface and collapse of the organ in mass have ensued when it has been used for a shorter time. Should this shrivelling occur in specimens otherwise good it may be removed by keeping the organ in glycerin for a prolonged

period (weeks to months). Remove the varnish by spirit before immersing in the glycerin.

Stieda's Process for Preserving Brain.—A modification of the preceding. Place the brain in chloride of zinc, sat. aqu. sol.; leave 24 hours. Pia now removed. Transfer to 96 per cent. alcohol; change latter every 5-6 days. Brain sufficiently hardened in 2-3 weeks. Place in turpentine; leave 2-4 weeks. This penetrates the quicker the better the brain has been dehydrated; at least two weeks needed. The organ becomes again rather soft, but "transparent;" it acquires a brownish tint. Place in varnish (so-called "drying-oil") for two weeks. Remove and allow to dry thoroughly in air. Experience here shows that much more shrinkage takes place by this method than by Giacomini's, and that a cheesy dryness of portions of the surface quickly occurs, even when much more time than that recommended is spent over the process. Dr. Adair, Pathologist at Wadsley Asylum, has also failed to get satisfactory results with the method. By stopping short of the varnish-stage and leaving the brain in the turpentine the writer finds that very good museum-preparations may be obtained.

An Axis-Cylinder Stain.—Quite recently Stroebe ("Centralbl. f. Allgem.," Path iv., Band No. 2) has described a novel method of staining the axis-cylinder which he has found very serviceable in the study of peripheral nerve regeneration, but also quite satisfactory for staining this structure in the central nervous system—a result which was to be expected, since the fine axis-cylinders of the young nerve-fibres met with in the earliest phases of regeneration form severe test-objects for stains. The special feature of this method is that a practically isolated stain of the axis-cylinder is obtained. Effective contrast-staining is possible. The procedure is as follows:—1. The tissue is hardened in Müller, thereafter in alcohol (if desired), and sections cut as usual. 2. Stain in fresh sat. aqu. sol. anilin-blue, 10 min.-1 hour; sections become blue-black. 3. Wash off excess of stain in water, then place in a small porcelain-dish of absolute alcohol, to which have been added 20-30 drops of one per cent. solution of alkali-alcohol (1 grm. caustic potash to 100 ccm. alcohol). In the alkali-alcohol sections turn of a light-rusty colour, clouds of reddish colouring matter issuing from them. As soon as these cease to form, and the sections are of a light red-brown colour and transparent, differentiation is complete (1-several minutes). 4. Wash in distilled water (5 min.); the sections acquire a clear blue tint. 5. Contrast-staining in conc. aqu. sol. safranin, dil. with equal parts of water, $\frac{1}{4}$ - $\frac{1}{2}$ hour. 6. Place in abs. alc. to remove excess of safranin, and to dehydrate; the sections now look red, with a tinge of blue. Xylol, xylol-balsam. Axis-cylinders appear dark-blue, medullary sheaths, cell-protoplasm, ground-substance, and cell-nuclei various shades of red; the last-named sometimes retain the blue colour.

Kulschitzky's Stain for the Central Nervous System.—Sections made from tissues hardened in Müller or in Erlicki's fluid are stained for 18-24 hours in the following solution, slightly acidified before use by the addition of 2-3 drops of acetic acid to a watch-glassful of stain:—Hæmatoxylin, grm. i.; abs. alc., a few ccm., sufficient to dissolve this; saturated sol. boracic acid, 20 ccm., dist. water, 80 ccm. The stain is at first yellow, but in 2-3 weeks becomes deep-red, and is then fit for use. A simpler way of preparing the stain is as follows:—Dissolve 1 grm. hæmatoxylin in a few ccm. alcohol, and add 100 ccm. of two per cent. aqu. sol. acetic acid.

After staining, wash in alcohol; here differentiation takes place. The medullary sheaths of nerves are stained deep blue; other tissues remain unstained or acquire a yellowish tint. Staining is particularly effective when the sections, after differentiation, are allowed to remain 24 hours in sodium or lithium carbonate (sat. sol.). By allowing sections stained after the ordinary Weigert-Pal method to remain (after differentiation) in conc. lith. carb. sol. awhile the staining is improved, a fact brought to the writer's notice by Dr. Adair.

Lissauer introduced the following method of conducting Weigert's process—distinguished by its rapidity. If reliable (the writer has no experience to adduce) it is certainly worthy of adoption. Sections as thin as possible, from tissues hardened in Müller, are placed in one per cent. sol. chromic acid, which is carefully warmed until bubbles begin to form; they are then lightly washed in water, and again warmed, in similar fashion, in Weigert's hæmatoxylin solution. The usual treatment with permanganate of potash and sulphurous acid is then proceeded with. Medullated fibres are stained deep-black, and are brought out uncommonly distinctly.

2. *Retrospect of Criminal Anthropology.*

By HAVELOCK ELLIS.

The Elmira Reformatory.

The "Year Book" of the Elmira Reformatory for 1892 is an admirably produced volume; it contains, also, a very large number of process illustrations from photographs, as well as 100 woodcut portraits of inmates with accompanying histories. Like last year's "Year Book," it is the product of the intelligence, skill, and industry of inmates engaged on the institutional journal, "The Summary."

It is satisfactory to find that considerable space is devoted this year to the interesting operations of the Physical Training

Department, under the superintendence of Dr. Hamilton Wey. This comprises a gymnasium and a Turkish bath, and in some cases is associated with special dietary treatment. It has sometimes been found a valuable substitute for the hospital. Last year 132 inmates were assigned to this department for physical betterment and renovation. Shallow respiration and pulmonary insufficiency were found to be common defects in these men. "Incredible as it may appear, breathing exercises, with voluntary forced expansion and contraction of the chest, are the most difficult of accomplishment. These boys possess only to a limited degree the power of conscious control over the muscles of respiration. Almost invariably when told to draw in the breath, they practise expiration, and at command to empty the chest, inflate it. Swimming has frequently been found to bestow what conscious efforts failed to yield." The dull and stupid class received considerable attention. "They are deficient in nervous energy, easily taking on flesh, like a stall-fed ox, and displaying their greatest activity in obedience to sensuous promptings. With this class physical education inculcates habits of obedience, mental concentration; and application, and forces into the background the former man." There are a number of photographs of men of this and other types; a series of interesting nude full lengths is also given, showing the condition before and after six months of physical training (back, front, and side view, *i.e.*, six photographs of each individual); the improvement is equally obvious, whether the subject was physically gross or emaciated at the outset.

"Most of the men," we are told, "were of inferior stature, small-boned, and indifferently nourished. For the reason that they existed prior to and at the time of commitment, these conditions cannot in part be charged to the effects of prison life. Certain effeminate traits—in facial lines, soft and low voice, and diminished growth of hair in axillary and pubic regions—appear. If certain ones were clothed in more attractive dress than the severely plain prison garb, they would pass for artless and guileless boys among confiding and unsuspecting people. At the plastic age crime cannot be clearly read upon the face. Numerous examples of gynecomasty have occurred, ranging from a rounded development of bust and prominent nipple surrounded by a deeply pigmented areola to well-defined mammary glands that have periodic seasons of congestion and attempts at functional activity. In one instance there was well-marked glandular secretion."

The skin is usually found to be dry and harsh; there is impaired tactile power; acne in all stages is extremely common. Pronounced facial and cranial asymmetry also often exists, and unequal contraction of the muscles as in mild cases of facial paralysis.

It is interesting to note that the emotional instability which in England has been chiefly observed in female prisoners is here

found in a marked form. "Waves of ascending nerve-currents are frequently witnessed, manifesting themselves in passing destructive tendencies, irritability, or sulks; or an unexpected and unprovoked assault upon a fellow-prisoner may result from accumulated nervous energy. Changes in manner and appearance convey to the trained observer, days in advance, the approach of a nervous storm, and in extreme cases afford an opportunity to confine the subject, that the attack may be modified and shortened. These nervous storms are of common occurrence, but happen with greater frequency in early spring and fall."

A kindergarten was established last year. This was an excellent step, for at Elmira, as in every large convict prison, a considerable proportion of the inmates are still in the infantile stage. "Few of them can distinguish between the days of the week, between the months, seasons, or years." The kindergarten was founded on Froebel's method, with a few variations. Twenty men have passed through it, and "as a result, while in some individual cases little or no success has been apparent, a vast improvement has been noticed in others." An examination was recently held, which was on the whole passed satisfactorily. Here are a few of the questions:—What is a circle? Write down the five vowels. Three are how many times one? What number must I take from three to have one left? As seven months previously these unfortunate creatures "were utterly incapable of forming the slightest idea upon any of the subjects chosen, were practically soulless, devoid of all mental perception, as untutored as the newly-born babe, the progress made will not be judged as mean." It is possible that in the future a kindergarten will become an adjunct of every large convict prison, as Elmira is now more than ever being regarded as a kind of criminological laboratory in which experiments are tried for the benefit of the world generally. Among the 1,500 inmates of Elmira there are some, it need not be said, of very different mental calibre from the kindergarten class, and the experiment has been tried during the past year of allowing some of these to deliver lectures to their fellow prisoners on various subjects. This seems to have been entirely successful, and such lectures were listened to by many of the hearers with an interest which would not have been given to a speaker from without.

A word may be said as to "The Summary," the weekly newspaper published in the reformatory. It is now in the eighth year of its existence, and it has a circulation of 2,500. It is in every detail the product of inmate talent; editors, engravers, printers, and pressmen are all prisoners. All items of a sensational or criminal character are excluded from its pages, but it contains valuable contributions from eminent criminologists in Europe and America. "The Summary," therefore, not only contains information about Elmira, but also deals with the general problems of

crime and the methods of dealing with them, and it has a deserved circulation among criminologists throughout the world.

Criminality and Insanity in Women.

In the "Zeitschrift für Psychiatrie," Band 49, Dr. P. Näcke, of Hubertusburg, has lately studied, in a careful and detailed manner, from the clinical, statistical, and anthropological points of view, a number of normal, insane, and insane criminal women ("Verbrechen und Wahnsinn beim Weibe," and in a subsequent number of the "Zeitschrift," "Die Anthropologisch-biologischen Beziehungen zum Verbrechen und Wahnsinn beim Weibe").

The investigation was not in every respect satisfactory; it did not include any group of criminals free from insanity, the "normal" women investigated (asylum attendants, etc.) seem to have been singularly abnormal, and the general results have been somewhat vitiated by Dr. Näcke's inability to study each group in an equally thorough manner. On the whole, however, Dr. Näcke's study is an important contribution to the rather scarce literature dealing with the criminal anthropology of women. It is concerned with details as well as with the broader problems involved, and there is constant reference to the results of previous investigators; the list of books referred to covers nine pages. In the first part of his work, Dr. Näcke gives the clinical histories of (1) 53 women who were brought to Hubertusburg Asylum from prison, and of (2) 47 insane women who had undergone imprisonment at some previous period. Later on these two groups are statistically and anthropologically compared with (3) 42 insane women and (4) 100 normal women. The clinical histories are necessarily somewhat condensed, so that they cover less than fifty pages, but many of them are of considerable interest from the psychological point of view. One defect may be mentioned, because it is so important and so common. We are told in reference to a very large proportion of the crimes of violence here recorded that the woman was menstruating at the time; in the other cases we are told nothing on this point, although it is just as important to record the absence of the function as its presence; unless this is done the affirmative cases have no significance. It is probable (as is suggested even by the histories here) that most crimes of violence in women occur at menstrual epochs, but we have at present no series of cases which conclusively shows this. In recording the history of a criminal or insane woman, the relation of any violent act to the menstrual cycle should be noted as a matter of routine.

Of group I. nearly all belonged to Saxony, and not less than 77 per cent. were single, though they were mostly in middle or later life; seven were described as prostitutes; 53 per cent. were domestic servants. On analyzing their mental condition, the author concludes that 15.1 per cent. were certainly insane at the

time they committed the act for which they were punished, while 20·4 per cent. were in all probability insane; that is to say, that of these 53 women, at least 20 to 25 per cent., or from one-fifth to one-quarter, were wrongfully punished. This is, as is here observed, a "colossal figure," but in perfect accordance with the results of other investigators. "Langreuter asserts that in 1884-5, in Prussia, of 1,200 insane persons received from prison, at least one-third were insane at the time of the deed; Mendel places it at three-fourths; Sommer, among his insane criminals, found very few who were quite normal before the deed; and Kirn, among 129 prisoners, only found 15 who were mentally sound."

Of group II., the 46 insane women who had at some time in their previous lives come into conflict with the law, 66 per cent. were unmarried; they all belonged to Saxony, and to the poorest class. Of these 19·2 per cent. were certainly insane at the time they committed the act for which they were imprisoned, and 23·4 per cent. were probably insane, the total being, again, one-fourth to one-fifth. The case is mentioned of a congenitally imbecile woman, who was imprisoned 142 times without any suspicion as to her mental condition occurring to the judge. Such facts furnish strong evidence ready to the hand of those who seek to modify judicial procedure in such a manner that the criminal anthropologist may sit beside the judge, or that the judge should himself be a criminal anthropologist.

A very marked psychic characteristic of the women in group I. is their nervous irritability. The extraordinary proportion of 62·2 per cent. are liable to outbursts of violence. Most, though not all, of those who are violent are also destructive—45·3 per cent. of the group. The worst class includes those who exhibited unmotivated outbursts of impulsive violence ("Zuchthausknall"); these form 23 per cent. of group I. These outbursts (as Dr. Nicolson found in England) usually occur at menstrual periods, and, with two exceptions, only during the period of sexual life, although the average age of the women is high. Other psychic characters of the group are the grossest egoism, discontent with everything, a tendency to lie that seems compulsory, and often a tendency to steal, while they are fond of playing all sorts of tricks, and are mostly ungrateful, envious, and jealous.

After a brief description of the various systems at present adopted for the treatment of insane criminal women, Dr. Näcke declares himself in favour of that adopted at Perth.

In the second article, the author records the average result obtained from a number of anthropometrical measurements—heights, colour of hair and eyes, various head measurements, observations on eyes, teeth, ears, etc.—on the 241 women included in his four groups. It is impossible here to summarize all the results, which are, however, very clearly and methodically arranged, with some amount of general discussion on their significance and relations to

the results of other investigators. Dr. Näcke appears to have been in correspondence with some of the chief German anthropologists, many of whose opinions he here quotes. He found large heads (as measured by horizontal circumference) most common in group IV. and least so in group I. In group IV. also the anterior part of the head is larger and the posterior smaller than in group III. All are mesocephalic, but more especially group IV.

The author concludes that there is an intimate relationship between criminality and insanity, both having a common root. He attaches great importance to the social factor in determining criminality, the common predisposition being given, and he will not accept a "criminal type" in any sense. He considers that the rare examples of "congenital criminality" (in Lombroso's sense) may be identified with "moral insanity" or, as Neumann has termed it, "social feeble-mindedness." It must, however, be added that the fact that the difference in the signs of degeneration between the criminal, insane, and normal is only "relative" and not "absolute" cannot—as Dr. Näcke seems to think—be said to make against Lombroso, who has certainly been guilty of exaggerations, but has never claimed that there is any specific physical sign of criminality, and would entirely agree with Dr. Näcke that it is simply a matter of greater frequency of degenerative signs.

In a subsequent article, Dr. Näcke has given the results of the examination of 16 female skulls, including those of at least eleven criminals (murderesses, thieves, etc.) and one suicide ("Untersuchung von 16 Frauenschädeln darunter solchen von 12 Verbrecherinnen, incl. einer Selbstmörderin," "Archiv. für Psychiatrie," Bd. xxv., Heft i.). The skulls belonged to the Dresden Anthropological Museum, and nothing is known of the subjects beyond their names and the offences of twelve; there is some reason to believe that all sixteen were criminals; it may be taken for granted that all the women belonged to Saxony. A very remarkable character of these skulls is their great breadth; even the average cephalic index of the 16 is hyperbrachycephalic (87.4), and in the four murderesses it reached nearly 90. The average capacity was by no means small, 1332.5; this is more than the average German female skull, but is probably not large for the Saxons, who are a large-bodied people; and Näcke's observations on the living go to show that the insane and insane criminal women have smaller heads than normal women; the thieves had distinctly larger heads than the murderesses, which is contrary to the experience of Lombroso and some other observers; but, as usual, it was found that the range of variation was very great (1165 cc.m. to 1520 cc.m.), and that there was a preponderance of very large and very small heads, the medium-sized heads being in a minority. There have not been many ob-

servations on the skulls of women criminals, and it has been asserted that they show fewer abnormalities than those of men, but Dr. Nücke has found abnormalities to be extremely numerous. Ten of the skulls were abnormally heavy from excess of bony growth, and most of these, strangely, belonged to old women; the tenth was a fairly normal skull, but of masculine character. Many of the skulls showed rachitic signs; four of the twelve criminal skulls were hydrocephalic, and other minor abnormalities were numerous and well marked. Of the 16 skulls nine were distinctly pathological, which seems to indicate that the brains they contained were probably pathological also, and suggests that a considerable proportion of these criminals were really insane. (Dr. Nücke refers more than once to the sketches of criminal heads by the late Dr. Vans Clarke in the present writer's book, "The Criminal," as surely exceptional. I may say that I merely selected average examples from Dr. Clarke's much larger series, and that Dr. Clarke assured me that the portraits were not to be regarded as exceptional; it must be acknowledged that they are not very elaborate or skilful and that salient features have no doubt become exaggerated. I would add that the composite photographs in the same volume, which Dr. Nücke contrasts with Dr. Clarke's sketches, are of first offenders only; hence their comparatively normal character.)

The Medico-Legal Journal.

This journal, the organ of the Medico-Legal Society of New York, is developing in a vigorous manner. Although published in America, it is largely international in character, and it devotes considerable space to English affairs and English contributors. Dr. Orange is the vice-president for England, Dr. Ireland for Scotland, and Mr. Wood Renton (to whom were entrusted the legal articles in the "Dictionary of Psychological Medicine") is the chief English legal representative. An International Medico-Legal Congress is to be held at Chicago in August under the auspices of the Medico-Legal Society, and a large number of well-known European and American alienists, criminal anthropologists, and lawyers will be present to read papers or join in the discussion. The congress promises to be very successful, and if it should succeed in supplying its British members with a sufficiently vigorous stimulus to induce them to go home and found a society and a journal which will give doctors and lawyers a common meeting ground, it will have done good service indeed. In the meanwhile "The Medico-Legal Journal" ought to find many readers in this country. Its latest feature (and that of the Society whose organ it is) is a special psychological section, with Mrs. C. van D. Chenoweth as chairman, and Mr. Clark Bell, the energetic editor of the journal, as secretary. "It is proposed to investigate every branch of psychological and psychical inquiry by organized com-

mittees. The section of hypnotism will be merged in this section, and investigations of hypnotism, psychical research, or psychical phenomena, in all forms or phases, conducted under its supervision." Among recent articles may be mentioned (beside several elaborate and very fully and admirably illustrated papers on blood and blood-stains in medical jurisprudence), "Criminal Responsibility in General Paralysis," by Dr. Norbury; "Criminal Responsibility in Inebriates," by Mr. Clark Bell; "The Criminal Insane," by Dr. Graham; "The McNaghten Case," and a report of the International Congress of Criminal Anthropology, by Mrs. Louise Thomas, the delegate of the Medico-Legal Society.

The International Association of Criminal Law.

This Association continues to make progress and to develop its activities, although it cannot be said that it has exhibited much sign of advance in our own country. There are now over 600 members, representing thirty different countries, and the Association contains within it three national groups—German, Norwegian, and Belgian—with independent activities. The object of the Association is to apply the knowledge of criminal anthropology gained by medical science to the reform of criminal law, and although this is a matter which primarily concerns lawyers, it is one to which medical men cannot be indifferent, and for the accomplishment of which their assistance is necessary. During the coming autumn there will be a general reunion of the Association, at which the following questions, among others, will be discussed: What influence can sociological and anthropological studies have on the fundamental conceptions of criminal law? introduced by Alimena, Garofalo, Gauckler, von Liszt, and Tarde; The indeterminate sentence, introduced by Brockway, van Hamel, and Prins; The method of organizing uniform and scientific statistics of recidivism, introduced by Bodio, van Hamel, and Koebner. An alienist will also introduce the discussion of moral insanity.

The Association is also engaged on an important but complicated study—"The Codification of Comparative Criminal Legislation." The first volume of this work will shortly appear.

3. *Therapeutic Retrospect.*

By HARRINGTON SAINSBURY, M.D.

At a recent medical meeting in Budapesth, Oct. 22, 1892, Dr. Schreiber combats the view that *electrotherapy* is suggestion-therapy, though he is obliged to admit the latter to be a potent factor in the use of electricity. Amongst other differences, he states that electricity is able to remove inflammatory products, to cause their absorption, whilst suggestion is unable to effect the same. We should be inclined to doubt the possibility of stating

so definitely what suggestion cannot do, but at the same time we should be more than prepared to allow that electricity is able to do something, for good or for evil, on its own account. To deny this would be to affirm that an agent with very definite physical powers, to which motor structures and sensory nerves respond very readily, is without effect upon the organism as a whole. Surely electricity is something more than the hospital *mistura flava*; at least, we must hope so.—“Therap. Monatsh.,” Jan., 1893, p. 32.

On By-Effects and Toxic Actions of Recent Medicaments. By DR. RICHARD FRIEDLÄNDER, of Berlin. “Therap. Monatsh.,” Jan., 1893, p. 43.

Dr. Friedländer discusses the action of *pental*, C^5H_{10} , as an anæsthetic, and draws attention to certain by-effects, which warn us, at least, to be cautious. Pental, we fear, is in great danger of losing its good name, if, indeed, it has not already lost it, for the absolute safety of administration promised by Prof. Holländer is contradicted by a death recently reported from Vienna. Cases reported by Holländer himself, and by Breuer and Lindner, indicate marked depression of the heart's action or of the respiration as of occasional occurrence. The choice of an anæsthetic concerns us all, and, unfortunately, an absolutely safe one is yet to be discovered.

On Sulphonal Action. “Therap. Monatsh.,” Feb., 1893, p. 57.

Dr. Emil Schäffer, Assistant Medical Officer at the Grand Ducal Asylum of Heppenheim, gives a very interesting account of a form of sulphonal intoxication which has only recently been recorded in one or two instances. He describes the occurrence of definite changes in the urine and in the blood. The urine acquires a dark-red colour, due to the presence of the so-called hæmatoporphyrin or iron-free-hæmatin. This body shows very definite chemical and spectroscopic behaviour, which render its identification easy. The blood in Schaeffer's case showed changes indicating a poverty of red cells and of hæmoglobin, but, unfortunately, the number and the colouring power of the cells were not estimated. Accompanying the above urine change was a diminished diuresis, and further there were abdominal pains and tenderness, especially in the regions of the stomach and liver, obstinate vomiting and marked constipation; the tongue moist and red. The patient lost flesh progressively, one-third of the body weight on admission (41 kilogrammes to 27 kilogrammes), and there was great prostration, also an irregular pyrexia. After these had been noted, the better known motor and sensory symptoms of chronic sulphonal poisoning appeared, viz., unsteady gait and occasional giving way of the lower limbs, with loss of patellar reflexes,

ataxia and weakness of the arms, slow and difficult speech, and great desire for sleep—paræsthesias were also present. The total quantity of sulphonal taken was 180 grammes, and within the space of 270 days. The daily dose when taken was one gramme (15·5 grains). The author then refers to other effects which have been recorded against sulphonal, *e.g.*, the sulphonal exanthem, attacks of heart weakness, paralysis of the extensors of the forearm, exactly simulating lead poisoning (Jastrowitz), etc. In his own case he thinks the obstinate constipation present facilitated the accumulation of the sulphonal effects, but though the patient did suffer from slight habitual constipation on admission, it is by no means clear that the subsequent marked increase of this trouble was not itself an effect of the poison. In the present case the hæmatoporphyrinuria calls for special notice, for up to the present only some twelve cases in all have been recorded. The moist and red tongue observed by Dr. Schäffer, and the fact that indigestible substances did not increase the severe epigastric symptoms, demonstrates, he thinks, that there was no real stomach mischief, and favours the view of Knoblauch that the vomiting of sulphonal is cerebral. Having in our mind a recent case of marked chronic sulphonal poisoning with epigastric pain and tenderness, and with moist red tongue, we are tempted to combat this view most decidedly. The tongue that we saw was obviously an irritable tongue with thin epithelial layer, and along with the anorexia present there was a by no means tolerant stomach.

The author, in conclusion, admits that though hæmatoporphyrinuria has been noted in other affections, yet it has been recorded (though with a small total) in sulphonal poisoning more often than in any other morbid state. Its occurrence, he says, adds much to the gravity of the prognosis.

Ethyllic Chloride, C_2H_5Cl . "Therap. Monatsh.," p. 113, March, 1893.

Dr. Edgar Gaus, of Carlsbad, reports on the value of this drug in the treatment of neuralgias. He reminds us of the use in France of the chloride of methyle (CH_3Cl) for the same purpose—this since the years 1884-1885—but adds that in the chloride of ethyle, first introduced by Redard as a local anæsthetic, we have an equally efficient and more easily applied remedy, as well as a safer one. Ethyllic chloride is a colourless liquid of ethereal odour, boiling at about $10^{\circ}C$. ($50^{\circ}F$). It is supplied for therapeutic purposes in small tubes about 5in. long, and drawn out at one end into a fine point. At the time of using the capillary end is broken off, and the tube held in the warm hand, the point directed horizontally towards the part affected, and at a distance of about 12in. The part thus treated is frozen. Dr. Gaus reports successful treatment in the following cases:—Supraorbital neuralgia, neuralgia of the breast, lumbago, migraine, pruritus scroti. The cases are few

in number, but added to the evidence we already possess of the value of ethylic chloride as a local anæsthetic in minor surgery and dental operations they serve to establish the efficacy of the drug. Efficient local treatment for neuralgias is a very welcome addition to our armamentarium. By treatment we do not mean mere palliation for the time being, but persistent benefit, such as is claimed for his compound. Reports on ethylic chloride as a local anæsthetic will be found in our journals for the last year or two.

Hypnal. "Therap. Monatsh.," March, 1893, p. 131.

In 1890 Bardet introduced a compound of chloral hydrate and antipyrine as a hypnotic under the name of hypnal. The compound described by him contained about equal parts of the two bodies, and inasmuch as hypnal was found effective in about the same dosage as chloral hydrate, it was evident that the two constituents must co-operate in their soporific powers, whilst at the same time the compound possesses analgesic properties. Further investigations showed that there was more than one compound of chloral and antipyrine, and that these differed much in physical and chemical characters and therapeutic action. Reuter described one such compound which was practically inert, and Filehne, in the "*Berlin Klin. Wochenschr.*," No. 5, of this year, describes another such. Probably these two are one and the same. An active hypnal, prepared by the Höchster Pigment Manufactory, and tested by Dr. Herz under Filehne's direction, is now described, and it appears to answer to Bardet's hypnal; it contains 45 per cent. of chloral hydrate and 55 per cent. of antipyrine. It is recommended in the milder forms of excitement, in commencing delirium tremens, in chorea, and in "essential" insomnias. The drug took effect in 20-30 min.; the dose for adults ranged between 15-45 grains. It is best given in 10 per cent. solution in water, and its slight taste can be covered by a syrup of orange peel or by an aromatic tincture. As the Quaker said about dirt, if we must have it let us have it in the middle of the room and see it, so if we must have these innumerable compounds let us endeavour to lay bare the intricacies and impersonations of their bulky molecules.

Investigations into the Action of Trional and Tetronal. By MICHAEL HORVÁTH, of Budapesth. "Therap. Monatsh.," p. 135:

These confirm the results of Kast in classifying trional and tetronal as qualitatively similar to sulphonal. They possess the advantage over the latter of a more speedy action, producing sleep within the hour. Quantitatively Horváth thinks that tetronal is more active than trional, in opposition to Schultze's view, but this point is evidently not established. On the same page we find a reference to Dr. Garnier of Dijon's results with these disulphones. He thinks they are rather more efficient than sulphonal, but then he gives this as an impression only.

By-Effects and Intoxications of Modern Medicaments. By Dr. RICHARD FRIEDLÄNDER, of Berlin. *Paraldehyde.*

This is a valuable summary of the results following the use of *paraldehyde*, and we may note that the drug has undergone a very extensive trial since its introduction. The first point calling for notice, viz., the taste of the drug, is hardly a by-effect, but it is a very practical difficulty in the way of the use of *paraldehyde* outside asylums—*de gustibus*. . . . Next we have the elimination of the drug in particular by the breath, the exhalations being very unpleasant, both to the patient and to attendants, but we should have thought this drawback was over-stated when it is said that the breath of one patient is able to foul (“*verpesten*”) the air of a large dormitory. *Paraldehyde* is irritant to mucous membranes, and is held to be contra-indicated by all forms of respiratory trouble, and, in particular, phthisis, with laryngeal complications. In irritable states of the stomach and intestines it should be avoided, for there are many records of the establishment of alimentary tract irritation, independent of any pre-existing mischief. It is true the statements on this point are somewhat discrepant, Leech, for instance, denying that *paraldehyde* sets up alimentary trouble, but the balance of evidence is against this statement, and we must take pre-existing alimentary trouble as indicating caution, if not contra-indicating. Diarrhœa is said in some cases to have been caused by the drug. More interesting and more important is the question of the influence of *paraldehyde* on the circulation, for we may say almost that the stated absence of circulatory depression by *paraldehyde* is its *raison d'être*: nothing less could excuse its flavour and odour. Careful investigation has practically established this statement, and we may disregard the slight accelerations and retardations, dirotisms, and irregularities which have been noted. The blood pressure is uninfluenced by small doses, and large doses exert only a slight depressing action. Cases of peripheral vaso-paralysis have been observed in the chronic use of *paraldehyde*, and a very remarkable case, recorded by Sommer, may be placed alongside of Rehm's case, in both of which extensive tracts of skin of the head, chest and abdomen showed marked injection. The headaches and the complaints of “blood to the head” and the vertigo complained of by patients are possibly interpreted as vaso-paralytic.

In dyspnœal states, with dilated heart, *paraldehyde* must be used with much care. Rolleston cautions against it; collapse and dyspnœa have followed even moderate doses under these conditions. The harmfulness is here put down to the effect on the respiratory centre, and it must be remembered that when *paraldehyde* kills (experiments on animals) it is by respiratory paralysis. The effect on the urine is unsettled: Morselli records increased flow; Berger and others have seen diminution—till this is

established it is, perhaps, premature to discuss the restrictions this would place on its employment. Albumen in the urine was found in two cases of prolonged use of paraldehyde, in one case by Krafft-Ebing, in another by Jastrowitz.

The temperature suffers slight depression, two- or three-fifths of a degree (F.). According to some this is the effect of large doses, whilst small doses may cause slight rise.

The effect on the blood is what one would expect from the reducing power of aldehydes; there results a certain amount of methæmoglobinuria and methæmoglobinæmia, and the corpuscle changes may recall the changes in pernicious anæmia. No case of pernicious anæmia following its use has, however, been recorded.

The action upon the nervous system is a specific one; putting aside the desired effect, sleep, patients may complain of a feeling of intoxication, of confusion, of headache even with small doses, but it is the continued use of paraldehyde which swells the list of nervous effects. Locomotor and speech disturbances, tremulousness, epileptiform attacks, delirium, hallucinations of vision and hearing, loss of memory, and weakness of mind, emotional uncontrol, irritability, exaggeration of the reflexes, sometimes marked, all these separately or in various combinations have been observed. Krafft-Ebing tells of a nervous woman who for a whole year had taken at least 40 grammes daily (about 10 drachms), and who on the third or fourth day of the withdrawal of the drug suffered from epileptiform attacks and auditory and visual hallucinations. This, of course, reminds us of the delirium of alcoholism; *en passant* we may observe that we have seen symptoms closely simulating delirium tremens follow upon the withdrawal of sulphonal. Paraldehyde, like almost every hypnotic, loses its effects with continued use, and it is necessary to increase the dose.

Not a single death from paraldehyde has been recorded.

On the Treatment of Morphinomania. "Bulletin Général de Thérapeutique," April 23, p. 49.

M. Grellety here discusses the terrible progress of morphinomania among medical men. He speaks of two recent deaths from the poison, and that during the last few years some twelve cases among medical men have come under his notice. He urges that the victim's only chance is to enter some hospital or asylum and place himself unreservedly in the hands of the doctor. He further advocates the abrupt stopping of the morphia. A recent *brochure* by Charles Lefèvre on the same subject is cited as insisting upon the necessity of this "under-care" treatment, and as advocating the establishment of special institutions for the treatment of morphinists. In the discussion which followed, M. Créquy thought that the taking of morphia was less to be feared where it was used only for the combating of pain, and that it was only where the drug was taken for the sake of pleasurable,

emotional, or stimulant effects that it was dangerous. No doubt this is so; morphia may be employed for months or years as a sedative only, without the production of morphinomania, and, indeed, one author advises that there should be a distinction in name between such as use the drug in the treatment of pain only and those who take it for its own sake, for positive pleasure bestowed. But it is certain that morphinomania springs, for the most part, out of the more legitimate use of morphia as an analgesic. M. Bardet suggested that the subjects of this craving, though they may have had good reason for commencing with the drug, are in general mentally unstable, and if they get rid of this vice, fall into another. This is, surely, saying far too much, for though in general the type which succumbs will be the highly strung, and, therefore, unstable, yet we know that they may put this habit aside and acquire a stability which is able to restore them as useful members to society. M. Bardet advised the use of morphia and opium in full dose whenever it was thought fit to use it in medicine; in this way the analgesic and narcotic effects would be obtained, but with probable after-effects, nausea or vomiting, which would not render it acceptable. But is this safe practice? He also advised the use of atropine along with the morphia as a means of suppressing the pleasurable intoxication of morphia. M. Constantin Paul urged, as the essential point, the keeping of the syringe in the hands of the medical man prescribing the injection.

On Exalgine in the Treatment of Hallucinations and on its Action as Compared with Antipyrine. By Dr. E. M. de MONTYEL, Superintendent of the Public Asylums for the Insane in the Seine Department.

The question occurred to Dr. Montyel as to whether by the use of analgesics the sensory perversions of the insane might be treated. A statement made by Dr. Salemi, of Nice, in 1888, that with antipyrine he had cured a patient suffering from hallucination of hearing and sight of three years' duration, incited Dr. Montyel to systematic investigation. In sixteen cases he carefully tested the drug, but the results were entirely negative. In 1891 the Italian observers, MM. Berarducci, announced success with antipyrine in sensory perversions. The quantities they employed ranged between 30-45 grains, as minimal doses, up to 90-120 grains. In his first researches M. Montyel had not exceeded 30 grains, and he, therefore, reopened the study with these larger doses. His results were more definite. In 19 per cent. there was no effect, in 54 per cent. the patients' troubles were greatly aggravated, in some 17 per cent. the patients were decidedly improved, in 10 per cent. the results were doubtful.

The explanation of the success in certain cases (17 per cent.) is to be found, the author thinks, in a suppression of the reflexes on

which the sensory perversions depend, and all cases of hallucinations which are not dependent on a peripheral excitement or irritation are, he considers, uninfluenced. The theory is plausible.

He next passed to the investigation of exalgine, and he made use of the same material from which he had obtained his results with antipyrine, in order to have a means of comparing these two drugs. The exalgine was concealed in the patients' wine, so that they were unaware of the investigation, a point laid stress on, because of the dissimulatory powers of these patients; the minimal dose was 6 grains at the start, this was raised ultimately to 15 grains (*pro die*?). The results with 29 cases are then detailed and summed up. These were: Aggravation of the symptoms in 22 cases, no result in 7. Lest the previous treatment with antipyrine should have rendered the patients insusceptible, in spite of a long interval of no treatment, ten other patients with hallucinations, who had not been treated, were now submitted to exalgine. The results now obtained showed that exalgine was able to influence certain sympathetic or reflex hallucinations, but with less certainty than antipyrine. Exalgine, moreover, often caused much disturbance of nutrition. We should, therefore, in cases of reflex or sympathetic hallucinations choose antipyrine and not exalgine. Of the mode of administration, we may note that antipyrine may advantageously be concealed in soup, exalgine more effectually in wine. Exalgine causes less general disturbance if given along with food.

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The Quarterly Meeting was held at the Rooms, 11, Chandos Street, Cavendish Square, on Thursday, May 18th. In the absence of the President, Mr. Whitcombe, ex-President, took the chair.

The minutes of the last Quarterly Meeting were taken as read and confirmed.

The ballot was then taken for the following list of candidates for election:—
Walter Reyner Brunton, M.B.Durh., Assistant Medical Officer, Borough Asylum, Milton, Portsmouth.

Maurice Craig, M.A., M.D., B.C.Cantab., Clinical Assistant, Bethlem Royal Hospital, London, S.E.

Henry John Macevoy, M.D.Lond., 41, Buckley Road, Brondesbury, London, N.W.

James Middlemas, M.B., C.M., B.Sc.Edin., Junior Assistant Physician, Royal Edinburgh Asylum.

Athelstone Nobbs, M.B., C.M.Edin., Assistant Medical Officer, Northumberland County Asylum, Morpeth.

Cecil A. P. Osburne, F.R.C.S.Edin., L.R.C.P.Edin., Surgeon to the Admiralty, Hythe, The Oaks, Hythe, Kent.

William H. Rivers, M.D.Lond., Clinical Assistant, Bethlem Royal Hospital, London, S.E.

H. C. Garth, M.B., C.M. Edin., Brockham Green, Betchworth, Surrey.

[We regret that in the last number of the journal the names of Drs. Ernest Wills and Eardley-Wilmot were omitted from the list of those who were elected members of the Association at the Quarterly Meeting held at Liverpool, March 9th, 1893.]

The CHAIRMAN declared that the whole of the candidates had been unanimously elected.

Dr. HACK TUKE then proposed for election as a Corresponding Member Dr. René Semelaigne, Secrétaire des Séances de la Société Médico-Psychologique de Paris. He said Dr. Semelaigne was a lateral descendant of Pinel, and as such was present at the Centenary of the Retreat last year, took part in the meeting, and at the dinner paid a very graceful tribute to the work which had been done in England towards reforming the condition and treatment of the insane. Apart from that, Dr. Semelaigne's work in France in a literary way had been considerable. He took great interest in English psychological literature, and had translated for the use of the French the last English Lunacy Act. He mentioned that as showing the interest taken by Dr. Semelaigne in our proceedings, whether the Act would be found of much use to the French or not. Dr. Semelaigne was well acquainted with psychological literature, and had himself written a good deal in French medical journals. Altogether, he was a very suitable man to be elected as a corresponding member. Under the old rules the Association could elect a corresponding but not an honorary member at a Quarterly Meeting as well as at an Annual Meeting. Under the proposed new rules, if they were accepted by the Association they would not be able—and he (Dr. Tuke) thought it was as well—to appoint corresponding members at any other time than the Annual Meeting. The old rule being still in force, he wished to avail himself of it, and to propose that Dr. René Semelaigne be elected a corresponding member.

Dr. OUTTERSON WOOD seconded the motion, which was unanimously adopted.

A paper by Dr. Gilmore Ellis, on "The Amok of the Malays," was read by the SECRETARY in the absence of the author. (See Original Articles.)

Dr. BLANDFORD said if Dr. Ellis had been present he should like to have asked whether there was any connection between this running amok and the use of *Bhang*, or Indian hemp. As, however, he had made no mention of it in his paper, it was to be presumed that there was not. The use of Indian hemp led to results of a similar kind amongst those who were addicted to its use. It had lately been brought under his notice in the Island of Trinidad, where there was a very large coolie population. When those coolies first came over and used the Indian hemp, murders and murderous attacks were frequently the result. The result was that Indian hemp was now most strictly forbidden to be either imported or grown, and any person attempting to grow it was heavily fined. The consequence was that these attacks had almost died out, and the admissions into the asylum from the use of Indian hemp were very much lessened. It would be interesting to know whether there was such a use of it in the Malay Archipelago, but no doubt if there had been Dr. Ellis would at any rate have mentioned it. In the Island of Jamaica there was no law against the use of Indian hemp, the fact being that the coolie population was so much smaller that it probably was not thought worth while to look after them in the same way.

Dr. HACK TUKE said he had always understood that the abuse of Indian hemp was one of the chief causes of running amok, and he also was very much surprised on hearing no reference to it in the paper. "Smoking" was mentioned, and that might have referred to smoking Indian hemp, although, taken altogether, there seemed to be no reference whatever to that drug. Having had occasion some time since to make some investigations into this subject, he found it extremely difficult to obtain definite information, and on that ground the paper was one of very great interest and instruction. What information he did get certainly was to the effect that attacks of extreme excite-

ment and destructiveness did arise both in India and in the Malay Archipelago from the abuse of Indian hemp. The cases suggested epileptic mania more distinctly than anything else, and he had understood that epilepsy was one of the recognized causes of running amok. The paper was a very great help towards understanding the nature of the symptoms, and they were very much indebted to the author for having sent it. He wished to propose that the thanks of the Association be sent to the author for having forwarded this paper. It would be understood that at his own request it will appear in the "Journal of Mental Science."

Dr. BLANDFORD said he should be happy to second the proposition. Agreed.

Dr. MORRISON (of Hereford) said that the worship of a fetish in the East very often led to running amok, in addition to the use of Indian hemp. It seemed that the courts of law abroad did not recognize that men might act under homicidal mania, but usually regarded the man as being perfectly conscious of the commission of the crime. That was his experience in India. Of course, in such countries it was very difficult to get the evidence of specialists, because they were very few and far between.

The CHAIRMAN said his first impressions on hearing the early part of the paper were very doubtful. The question arose in his mind as to whether they were hearing an account of some peculiarities amongst the Malays, or whether they were going to criticize the sentence which a judge had passed upon a man who had run amok. The latter part of the paper brought to mind a case which had been under his own notice recently, and which would, perhaps, add to the interest which such cases had for all who were connected with asylums, or had the insane under their care. He recently had a patient run amok in his asylum, and he succeeded in killing two other patients, and it was only by the quick intervention of an attendant that he was prevented from killing a third. The man was under some hallucination of hearing. When he afterwards saw him and questioned him as to his act he said that he had had a message from God, using his own words, to "kill those other buggers." They were accustomed to that kind of language in asylums, and, therefore, he had no hesitation in repeating the man's words. There was no doubt that every individual item of his acts was most accurately remembered by the man. He was perfectly conscious of everything that he had done, and related the whole of the circumstances without any reserve. The man, without any history, came to the asylum, and was placed in a dormitory with four others. He had at the time delusions of grandeur. He was in a very benevolent state of mind; he was going to give all the patients around him money and other things, and there was not the slightest idea that he was at all dangerous to other people. Nevertheless, within half-an-hour of his going to bed this sudden homicidal attack came on. He pulled one patient out of bed, and either jumped upon him or kicked him in the ribs just over the heart, causing death within half-an-hour. Another patient he struck on the head several times with a chamber vessel, causing fracture of the skull, and at the time that the attendant caught hold of him he had his arm raised with the chamber in his hand to hit another patient. The fourth patient fortunately got under a bed, and he was able to give a correct account of all the circumstances. Had it not been so, no doubt he, and the Chairman in particular, would have been placed in a very awkward position. That patient, curiously enough, suffered from melancholia; he could scarcely speak; he had strong suicidal tendencies, and yet he got under his bed to save himself from being killed, and was able to give a most graphic description of the whole of the proceedings. That fact was undoubtedly the salvation of the asylum, and the evidence of that man sent the culprit to Broadmoor. The case was one of general paralysis. These homicidal attacks appeared to come on remarkably suddenly, and the act followed the idea with such rapidity that it was a matter of very grave consideration, even where they had no previous history of insanity, whether cases of that kind should not be examined by mental experts before there was any sentence passed upon them. The

sentence of the judge in the first case that Dr. Ellis had referred to appeared to be one of the greatest cruelty. There could be no doubt in that case that the man was insane, and the harrowing words of the judge were, to his mind, far greater cruelty than the hanging of the man.

MEDICAL SUPERINTENDENT'S RESIDENCE IN ASYLUMS.

Dr. MURRAY LINDSAY, in opening a discussion on the question, "Is it necessary for the efficient working of a County or Borough Asylum that the medical superintendent's residence should be in, or immediately connected by a covered way, with the asylum?" said the question was one of great importance as affecting the health, happiness, and comfort of the superintendent and his family. It was, moreover, a subject which members of the Association were perfectly competent to discuss. They were no doubt aware of the existence of Rule II. in the "Instructions to Architects" issued by the Lunacy Commissioners in 1887, which said:—"A good residence in, or immediately connected by a covered way with, the asylum, and in a convenient position, should be provided for the medical superintendent, with kitchen and other necessary domestic offices." That Rule, in his opinion, was very arbitrary, inconsiderate, unreasonable, and unnecessary, and he hoped that members present who were not already convinced of the truth of his assertion would be so after hearing the facts that he would place before them. He was well aware that it might be considered a bold thing to oppose constituted authorities. He had been a peace man all his life, and was never in the habit of advocating opposition to constituted authorities, having only twice in a pretty long experience opposed the Commissioners, on both occasions successfully, but there was a time when one ought to speak out plainly, even at the risk of incurring official displeasure, and that time had now arrived. They were no doubt a very meek, mild, and long-suffering class of public servants, but they might go too far in the direction of submission, and allow themselves to be crushed by the weight of officialism. He had reached that stage now that it was a matter of no personal concern to himself, because at Derby they had fought the battle and won, but he still thought it his duty to assist if possible his medical brethren and others in getting the Rule reduced to a dead letter, or expunged from the instructions altogether. They were no doubt aware that the Lunacy Commissioners in the erection of new asylums were insisting upon this Rule being carried out, and even at old asylums where new houses were being erected for superintendents they were trying to insist that the houses should be in or immediately connected by a covered way with the asylum. Some exceptions were made. For instance, at the Derby County Asylum the committee decided to erect a house for the superintendent on a site only 68 yards from the asylum, which would also be in telephonic communication with the superintendent's house, and there would be two assistant medical officers residing in the asylum. Yet the Commissioners insisted upon a subway and covered way from the superintendent's house to the asylum, with a tunnel to get under the front carriage road, which was only 12 feet wide, and a covered way the rest of the distance, at a needless expenditure of £250. He had argued the point before the Lunacy Board in London and with the Commissioners at the asylum, but failed to convince them. The committee, seeing no necessity for a subway and covered way, and acting on his advice, appealed to the Home Secretary, who was much more reasonable, as Home Secretaries usually are when appealed to, in asylum matters at least, for they have no antiquated fads or imaginary mountains to get over. The arguments of the Commissioners, as far as he knew, were only two. In their letter to the committee they did not give one single reason why they insisted upon the covered way; they simply issued a sort of peremptory mandate—a kind of coercion—which he for one felt it a duty to protest against and resist as far as possible. The only two arguments used by the Commissioners at two interviews

were that the superintendent should be able to slip into the wards unobserved ; and, secondly, that he should be protected from exposure to the weather, and his visits to the wards facilitated by a covered way, the Commissioners, perhaps, entertaining a fear and suspicion that his visits to the wards might not be so frequent, and his duties might be neglected if he resided in a detached house. Dr. Lindsay's reasons for disagreeing with the Commissioners were :—(1) That instead of facilitating unobserved or surprise visits by the superintendent, it is more likely to have the opposite effect, if the superintendent is to be restricted in this way and not be able to vary his visits by any means of ingress he pleases ; and that it is unnecessary for the requirements and efficient working of a county or borough asylum. (2) It tends to surround the superintendent with an air of suspicion and distrust, which is calculated to exercise an unfavourable influence on the staff. It is also, in my opinion, subjecting the superintendent to a kind of indignity, as well as casting a slur and reflection upon assistant medical officers. (3) It is calculated to be distinctly disadvantageous, for it allows the local authorities no freedom of action in a matter concerning which they may be supposed to be very competent judges ; it must limit the committee in the choice of a site for a superintendent's house, which will have to be placed sometimes in a very objectionable position in order to meet the Commissioners' requirements with regard to a covered way ; it must tie the hands of architects, and must interfere with privacy and the amenity of the surroundings ; whilst it is certainly not for the benefit of the superintendent's family, his children and servants, and even of himself, that his house should be in close connection with the asylum and its inmates. In short, such an arrangement is not calculated to promote the health, happiness, and comfort of the superintendent and his family ; whilst it is very much better for all concerned that the superintendent's house should be detached, and at a reasonable distance from the asylum. (4) The experience of Scotland conclusively proves that connecting tunnels or covered ways from superintendents' houses are not necessary for the efficient working of asylums. To insist on a covered way is, in my opinion, an erroneous idea, an antiquated fad, not in touch with the times, and entirely opposed to the enlightened views and practice of the Scotch and Irish Lunacy Commissioners, who place no restrictions in this direction upon committees and architects, and not only do not insist on a covered way or connection with the asylum, but encourage the erection of detached houses for superintendents at some distance from the asylum, where they can have that privacy and domestic comfort so necessary for their welfare and that of their families. The enlightened views and practice of the Scotch and Irish Lunacy Boards may be gathered from the following authentic facts :—

Scotland.—Of 19 Royal and District Asylums at present existing in Scotland there is no connection or covered way between the superintendent's house and the asylum in 13 cases ; and at the three district asylums now being erected in the west of Scotland it is not proposed that the superintendents' houses should have any connection with the asylums.

Ireland.—In Ireland the Board of Control of Irish District Asylums do not insist on a covered way connecting the superintendent's house. In many of the Irish asylums, such as Londonderry, Monaghan and Clonmel, the medical superintendent's house is completely detached, and at some distance from the asylum. It is further proposed to provide residences for the superintendent at Letterkenny, at the new Antrim asylum, and at the new asylum for Dublin district. In none of these asylums is it proposed to make any connection with the main building. The Inspectors of Lunatics in Ireland share the opinion of the Scotch Commissioners that a house should be provided for the medical superintendent detached and unconnected with the asylum, as tending to the health and happiness of that officer and his family, and to the satisfactory working of the asylum. (5) In England, in certain instances, both old and recent, as at Hanwell, Barming Heath, Worcester, Gloucester, Norfolk, and Lancaster asylums, exceptions have been made by the erection of completely

detached houses for the superintendents at these asylums. For examples of recent instances:—At Norfolk Asylum the superintendent's house is completely detached and at a considerable distance from both the old and new asylums. At Lancaster Asylum the superintendent's house is detached, 172 yards from main entrance to old building, and about the same distance from annex. As an instance of the distance of a Scotch superintendent's house from the asylum the Fife and Kinross District Asylum might be mentioned, where the superintendent's house is 726 feet from the centre of the main building, and 560 feet from the nearest point of that building. The foregoing were some of the arguments adduced by him against providing any subway and covered way between the superintendent's house and the Derby County Asylum, to which arguments the Commissioners replied that they were unconvinced by them, and added "that they will be unable to recommend the plan for the superintendent's residence to the Secretary of State for his approval unless a covered connection with the asylum is shown upon it." As it was evident that further argument with the Commissioners was useless, the Chairman of the Committee of the Derby County Asylum submitted similar arguments and appealed to the Home Secretary, who replied, "That after carefully considering the representations made by you and by the Lunacy Commissioners in this matter, he is not convinced of the necessity in this case of a covered way, and would approve of the plan without it." At another county asylum he believed this question of a covered way upon which the Commissioners are insisting is being fought out, and the committee seem disposed to resist the Commissioners' demand, and he hoped the committee would win. He produced a rough plan of his asylum, from which it would be seen that the frontage was one of the features of the institution. The Commissioners suggested that, in order to avoid a subway under the carriage road, the road might be lowered, as at the Salop Asylum, to permit of a covered way being made over it. This would have had the effect of spoiling the lawn and the pretty frontage of the asylum. What he contended was that the committees and the local authorities should have freedom of action in this matter. If they thought fit to have a covered way or to place the superintendent's residence in the asylum, well and good; but if, on the other hand, they thought fit to select the best site for the superintendent, then he maintained that they should have power to do so, and he thought it was high time to protest and make a stand against arbitrary and unreasonable officialism, and try to get some alteration of the Rule. He believed that if the committees of all asylums proposing to build houses for medical superintendents were to put their foot down firmly the Commissioners would be brought to reason in a short time.

Dr. REES PHILIPPS asked whether the discussion was intended to embrace superintendents of registered hospitals?

Dr. MURRAY LINDSAY thought it did so. Every officer ought to be in the hands of his committee to make him as comfortable as possible. He could see no earthly necessity for putting a chain round the superintendents in the matter.

Dr. REES PHILIPPS said he did not agree with the argument advanced by Dr. Lindsay. He was very glad indeed for Dr. Lindsay's own sake that he had gained his point and got his house, and it was to be hoped that he would live long to enjoy it and to give the county of Derby the great benefit of his services. He (Dr. Rees Philipps) had, unfortunately, had to fight with the Commissioners—in fact, they were frequently having a little amicable warfare—but, still, on this matter of the residence of superintendents, looking at it from the point of view of the superintendents of hospitals, he must say that he agreed with the Commissioners. He thought, for the proper working of registered hospitals, a superintendent's house should be in the middle of the hospital or as near thereto as possible. At Exeter he found it of the greatest possible advantage to himself, and he thought also to the funds of the institution, that his house was in the middle of the hospital. In his present hospital he,

unfortunately, had his house joined on to the building at one end; consequently he was always on the run from morning to night. He no sooner got back to his house than somebody came across to see him or he had to go over to see somebody. The comfort of the superintendent in a resident hospital and the interests of the hospital were vastly more safeguarded if he lived in the middle. This was the opinion of Dr. Needham when at Barnwood House. Perhaps Dr. Needham and himself were fortunate in one way, owing to the fact that they had no families. That made all the difference, but on the whole, from the point of view of the superintendent himself, he thought that residence in the middle of the asylum was infinitely to be preferred.

Dr. MURRAY LINDSAY said he intended moving a resolution, which he hoped the meeting would see its way to pass.

The CHAIRMAN ruled that if a resolution were to be proposed it should be on the agenda.

Dr. MURRAY LINDSAY said if that was the ruling of the Chairman he would give notice to propose it at the Annual Meeting. He did not mean to let the matter rest. He failed to see the difference between the English and the Irish and Scotch superintendents, or any good reason for such different treatment, surely all of whom are fit to be trusted. Why, if they could manage their asylums efficiently in Scotland (and no person conversant with the subject can deny that Scotch asylums and their medical superintendents are second to none) and Ireland without these restrictions, was it necessary that they should be imposed in the case of English superintendents? He claimed, for this occasion at least, to be an Englishman by virtue of residential qualification, having resided about two-thirds of his life in this country. He, therefore, felt it a grievance that Scotland and Ireland were better treated and were under a much more enlightened system in that respect than England. He did not wish to be put on a superior footing to his Scotch and Irish brethren, but he would certainly contend for English asylum superintendents to be placed on an equality as regards freedom in the erection of detached residences.

Dr. CONOLLY NORMAN (Richmond District Asylum) said he was very anxious to indulge in a little bad language—as bad language as the Chairman would permit him—on this subject, but he found that their excellent President-Elect had spoken so strongly about the action of the Commissioners that he was really at a loss to know what more could be said. Why the Commissioners in England should, in the first place, insist on what was decidedly retrograde, and should then refuse to give any reason for their action, was a matter that was past human comprehension. It seemed to be the greatest mistake in the world at that stage in their history that the action of Local Committees should be trammelled in such a manner as the English Commissioners trammelled their action in reference to this question of the superintendents' houses. Seeing that the local bodies generally were found not to be such dangerous wild beasts as they were thought a few years ago, it was time for the English Commissioners to give up what Dr. Murray Lindsay had so well called their "antiquated fads," and also to relinquish that exercise of arbitrary and unreasonable authority which they seemed so desirous to exhibit. Dr. Rees Philipps had spoken with reference to registered hospitals. As far as he knew, though he was sorry to say he was not as thoroughly acquainted with them as he ought to be, the patients in registered hospitals were not, as a general rule, very numerous. They were, perhaps, persons who, theoretically, at least, "derived all the benefits of a home, etc.," and they were supposed to be the medical superintendent's children. It was absolutely different when they came to deal with a large county, or even an important borough asylum containing from 500 to 2,000 patients. It was difficult to see what would be gained by the superintendent living in the midst of a little town of 1,500 patients. One result of the superintendent having quarters in the middle of the asylum was that he had the best outlook in the asylum, and he got too well treated, because the Committee of course always endeavoured to secure for him quarters as comfortable as circumstances would permit, and in

order to do this the patients might have to suffer. He had not the pleasure of privacy, and at the same time he would take from the patients the best position in the whole place. This injustice was not inflicted on the patients if the superintendent's house was away from the asylum. His house in Dublin was situated in the centre of the female wards, and, consequently, was about half-a-mile away from the male house. If it had been detached it would have been much more suitable for the very purposes which the English Commissioners proposed to serve. It seemed to him that this question was like the old logical crux of which it was said *solvitur ambulando*. The thing had been tried, and it had worked. In numerous asylums in Scotland, for example, Dumfries, Montrose, and Perth, the superintendent lived in a house situated several hundred yards from the asylum, and no bad result had ensued. Neither were these institutions backward in their administration, as they ought to be if the unreasonable action of the English Commissioners had any proper grounds. He (Dr. Norman) took, perhaps, a little personal interest in the matter, because he was at present endeavouring to induce his Committee to build a separate house for him, and he was quite certain that his asylum would not suffer in its administration in consequence.

The CHAIRMAN said he thought this subject was one rather for individuals. He had had the advantage of residing in a house attached to an asylum by a covered way. He had no doubt of the advantage of residing in an asylum in the centre of the building, because after all the superintendent stood in relation to his patients in *loco parentis*. He had always endeavoured to feel that wherever he had resided, believing as he did that the father of a family should be in the same house and not away from it. If a man had a family of twenty or thirty children, he would not take a small house for himself a mile away. There were several points to look at in considering a question of this kind. When he first saw the question to be discussed, he wondered whether some people might not raise the inquiry whether there was any necessity for a medical superintendent at all. In many of the asylums they had had the experience of a sort of lay superintendent, but it was one which he hoped would never be reverted to in asylum work. He believed that the medical superintendent was an absolute necessity in an asylum. Then came the question, where was the best place for him to reside so that he could best manage his institution? So far as his experience went he believed that the closer a man was to his work the better he did it. He knew that in Scotland some of the superintendents resided at a distance of half a mile or more, and the great question arose whether they may not as well be a thousand miles away. ("No, no.") They must all remember one great fact, namely, that asylums were built for patients and not for superintendents; that the superintendent was a man who could be put on one side and replaced at any moment. It did not do, therefore, to take extreme views and to carry out an idea of that kind for every asylum in the kingdom. It was entirely a matter that committees or superintendents should have in their own hands. As to the action of the Commissioners, personally he agreed with the rule laid down. He did so from his experience of asylum management, and he should be very sorry to see a rule laid down that the superintendents should live at a certain distance from their asylums. In asylums as in everything else, whether in business or elsewhere, the nearer the head was in touch with everything going on the better those things would go on.

MR. J. PEEKE RICHARDS said in the main he must agree with Dr. Lindsay that it was much better for the welfare of the patients and the institution, as well as for the comfort and the home life of the medical superintendent, that his residence should be detached from the main building. By "detached" he meant at some fair distance, because there were institutions where the medical superintendent's house was detached, and much was made of that circumstance, whereas, in reality, it was at a comparatively short distance from the main building. Dr. Lindsay, who was his predecessor at Hanwell, must know even

better than he did himself, that though his house was detached it was uncomfortably near to the main building, and he had found that many a time it would have been much more comfortable if instead of having the house detached it had been a portion of the main building, for this reason, that the house was so near to the walls that neither he nor any member of his family could go out into the garden without being overlooked by the patients, and all sorts of objectionable remarks were made, more especially if he happened to put in an appearance in the garden. There were sure to be some benevolent remarks made, probably couched in the classic terms that had already been referred to by the acting President. Dr. Lindsay had spoken of the Commissioners in Lunacy and their arbitrary conduct in the matter of rules. He did not think that in this they as a body stood alone. With regard to the Poor Laws, for example, the rules and regulations laid down by the Local Government Board were much more arbitrary than those of the Commissioners in Lunacy. He believed that the plan for every workhouse or infirmary had to undergo the scrutiny of the architect and of the Local Government Board most severely, so that it was hardly fair to criticize the action of the Commissioners in Lunacy in the rather harsh terms that had been used. The light in which he had always looked upon this rule, and it was one that affected more immediately the medical superintendents, was that it cast a slur upon them. In speaking to the Commissioners in Lunacy upon the subject they had inferred that the reason why they wished the medical superintendents' houses not to be detached, but part of the building, was that they would be much more frequently in the wards, thereby implying that if the houses were detached they would, as a rule, neglect their duties. That was the gravest matter of all, and it was one that came more home to medical superintendents' than any other point that Dr. Lindsay had mentioned. On the other hand, another reason why he thought it was well for the medical superintendent's house to be detached was that it was not well for the superintendents to be constantly going in and out about the wards. They knew what the result was in a private house, if the mistress was continually going into the kitchen or the servants' hall there would soon be "ructions." It was just as well, therefore, that the medical superintendent's dwelling should be at some little distance from his work, so that he should visit at irregular intervals. Thus he would be enabled to supervise and manage the institution much more satisfactorily. For these reasons he agreed with what Dr. Lindsay had said with regard to the house being detached, and he also thought that it should be at some little distance from the main building, at all events sufficiently far to be out of the way of the noise and the objectionable remarks to which he had already referred.

Dr. MORRISON said the important point seemed to be whether a medical superintendent could get his house isolated, and whether he had a covered way or not would not at all affect the matter. It was very arbitrary to say that complete isolation could not be got unless there was a covered way. If it could come within 200 or 300 yards and must have a covered way, it was a very arbitrary rule to say it could not go ten yards further and not have a covered way.

Dr. MURRAY LINDSAY, in reply, said the Chairman did not represent him in the way in which he wished to be represented. He had only claimed, what the Chairman himself admitted, freedom of action on the part of committees to do what they considered best for the superintendent or any other officer. He did object to Commissioners overriding the local authority and saying, "You must put up a covered way, and you must put your house there." He thought that was arbitrary. His friend Mr. Richards, whilst strongly supporting his views in favour of detached residences, called the statement harsh, but he saw no harshness in it, though it would be easy for anyone to employ harsh language who had had to go through the mill. Any harshness is more applicable to the Commissioners and their arbitrary rule. For upwards of twenty-one years he had lived in the centre of an asylum, exposed to noises, smells, and other dis-

comforts, and without the privacy of a house. He had lived in a detached house at Hanwell for seven years and a half; and in a detached house, at a still greater distance, at Murray's Royal Asylum, Perth, for thirteen months, when acting as medical superintendent *pro tem.* for his brother during absence on sick leave. He could therefore speak from experience, and he resented the idea that a detached residence led medical superintendents to neglect their work, and that they did their work better when they were in the centre of the building. For his part he maintained that the work would be better done if the superintendent was not stuck in the middle of the asylum, or close to the patients, and perhaps exposed to all sorts of language and remarks.

(Since the foregoing discussion took place, another asylum, in addition to Derby, has fought the point of a covered way and won. At the Durham County Asylum the Lunacy Commissioners insisted on a covered way between the medical superintendent's new house and the asylum, and also insisted on a room being provided for the use of the servants, saying that they could not recommend the Home Secretary to sanction the plans without these two additions. The Committee of the Durham County Asylum appealed to the Home Secretary, who did not agree with the Commissioners, and replied intimating his sanction to the plans without either addition.)

A paper on "The Treatment of Myxœdema," by Dr. Beadles, was taken as read, and the discussion adjourned to the next ordinary meeting. A number of photographs were exhibited showing the results of the treatment prescribed.

The CHAIRMAN said they were greatly indebted to Dr. Beadles for the photographs of these most interesting cases showing the wonderful result of the treatment. (See Original Articles).

A vote of thanks was passed to Dr. Beadles, and it was agreed that the discussion should be adjourned to the next Quarterly Meeting.

ANNUAL MEETING.

The Fifty-second Annual Meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at the Palace Hotel, Buxton, on Friday, July 28th, at 11 o'clock a.m.

Council Meeting at 10 o'clock.

The President will deliver his address at Three o'clock p.m.

FLETCHER BEACH,

Hon. General Secretary.

11, Chandos Street, Cavendish Square, W.,

June 6th, 1893.

NURSING CERTIFICATES.

A list of persons who have obtained the certificate of proficiency in nursing the insane at the examinations held in May, 1893:—

Kirklands Asylum, Bothwell.

Males.

Females.

Craig, Agnes.
Hooper, Florence J.
Johnston, Mary.

*Larbert Asylum, Sterling.**Males.*

Boyd, Robert.
Hendry, Donald.
McCorquodale, Alexander.
McDonald, John.
Thomson, Samuel.

Females.

Clark, Margaret.
McNair, Mary Jane.

Roxburgh District Asylum, Melrose.

Leitch, William.

Craise, Helen.
Stevenson, Margaret.
Smith, Jane.

Fife and Kinross Asylum, Cupar.

Buchan, Helen.
Mitchell, Jessie.
McLean, Maggie.
Taylor, Ada Isabel.
Wallace, Janet.

Argyll and Bute Asylum, Lochgilphead.

Livingston, Neil.
Mitchell, Colin.
Mitchell, Peter.
Ramsay, William.

Brown, Marrianne.
Barnaby, Maude.
Beaton, Agnes.
Lochead, Ann.
McLeod, Margaret.
McCulloch, Christina
Gillies, Mary.

Morningside Royal Asylum, Edinburgh.

Mitchell, James.
Petrie, John.
Stove, John.

Burgess, Lizzie.
Byfield, Ann.
Currie, Janet.
Johnstone, Margaret Helen.
MacNab, Bella.
MacDonald, Jane.
McKeith, Katherine.
Shaw, Isabel McWilliam.
Smith, Isabella.
Wood, Jane.

Brookwood Asylum, Surrey.

Carpenter, Charles.
Harding, James T.
Peto, James.
Sutton, Walter.
Tompson, Charles.
Wilkinson, Alfred.

Donohoe, Mary.
Lyons, Clara.
Luckhurst, Ada.
Penna, Mary.
Rea, Mary.
Stevens, Mary Ann.

City of London Asylum, Stone.

Haylock, Samuel.

Cooper, Albenia.
Driver, Mary.
Jarvis, Emma.
Mertling, Charlotte.
Thomson, Mary.

*Derby Boro' Asylum, Rowntree.**Males.*

Bodkin, Henry.
 Dring, William T.
 Flixon, Charles.
 Froggatt, John Arthur.

Females.

Adam, Ida.
 Doughty, Mary Ann.
 Gomm, Grace E.
 Morris, Annie.

Bethnal House Asylum, London, E.

De Pradines, Clara.
 Heynes, Mary.

Rainhill Asylum, Lancashire.

Allen, Hugh.
 Colwill, William R.
 Fluck, Alfred John.
 Howard, Hugh H.
 Howitt, James.
 Riley, William.
 Smith, Frank.
 Scriven, Frederick Charles.
 Thomas, Edward.
 Wait, George.
 Wakeling, John Samuel.

Gregson, Agnes.
 Lyle, Emma.
 Sellar, Annie.
 Weller, Mary.

Holloway Sanatorium, Virginia Water.

Bishop, Alfred.
 Blades, William.
 Montague, William.

Cox, Ellen.
 Davis, Frances.
 Daniel, Emma.
 Heath, Rose.
 Jones, B. Topham.
 Johnson, Katherine Elizabeth.
 Roylance, Mary.

Royal Asylum, Dundee.

Dick, Francis.
 Mitchell, William.
 Nicholl, James.
 Simpson, John.
 Stewart, James.
 Walker, William.

Swanson, Mary.

Warneford Asylum, Oxford.

Swadling, Frederick John.

Warland, Sara.
 Prior, Emily.

Winson Green Asylum, Birmingham.

Banford, John.
 Crawford, William.
 Jones, Edwin Thomas.
 Underhill, Charles Henry.

Berks, Julia.
 Coles, Hannah.
 Cullam, Emily.
 Moore, Emma.
 Keen, Kate Emily.

West Riding Asylum, Wakefield.

Allen, Harriett.
 Backhouse, Lillian.
 Dearnley, Alice.

Males.

Addy, Thomas Ellis.
 Boag, William.
 Byenand, Ernest.
 Coopland, Harry.
 Crickmer, Gerald McCauld.
 Greenwood, Sam.
 McCreadie, Alfred Thomas.
 O'Dowd, Thomas.
 Sunley, Harry.
 Thompson, George.
 Tonks, Samuel Hale.
 Whitehead, Alfred.
 Wood, Frederick.

Females.

Lindsay, Alice.
 Megson, Nellie.
 Penty, Maria.
 Talbot, Emily **Mary**.

West Riding Asylum, Wadsley, Sheffield.

Barwell, Zillah.
 Cash, Lizzie.
 Turner, Elizabeth.
 Wright, Mary Jane.
 Wheatley, Kate Elizabeth.

West Riding Asylum, Menston, Leeds.

Bennett, John William.	Ayres, Esther.
Hearn, Henry.	Gates, Constance Kate .
Illingworth, Charles Henry.	Hampshire, Louisa.
Myers, John.	Jones, Sallie.
Terry, George.	Plummer, Clara.
Watkinson, John William.	Mitchell, Annie.
	Viney, Kate.

The following questions were on the paper :—

Examination for Nursing Certificate.

May, 1893.

1. Mention the causes of lung disease.
2. By what means (*i.e.*, by what channels) is the refuse or waste matter of the body drained from the circulation?
3. What symptoms would lead you to expect that a patient is *losing weight*?
4. What symptoms would lead you to expect that a patient is *gaining weight*?
5. (*a*) What is a *sensory* nerve? (*b*) What is a *motor* nerve?
6. Name the special senses.
7. (*a*) What is a drawsheet? (*b*) Explain how you would use it. (*c*) What are its advantages?
8. (*a*) What observations would you make regarding the passing of urine, and (*b*) the appearances of the urine?
9. (*a*) Why is occupation important in the treatment of the insane? (*b*) What rules should be observed in promoting the occupation of patients?
10. (*a*) What patients are most likely to escape? (*b*) What circumstances would make you suspicious? (*c*) How would you guard against escape?
11. (*a*) In what way should attendants conduct themselves towards patients? (*b*) What do you understand by "showing a good example"?
12. (*a*) What are the risks in treating cases in private houses compared with Asylums? What precautions would you take? (*b*) What are the difficulties with relatives in private houses, and how would you endeavour to meet them?

Three hours allowed to answer this paper.

The first six questions are valued at 10 marks each; the last six at 20 marks each.

Two-thirds of the possible total of marks are required to pass.

PASS EXAMINATION AND GASKELL PRIZE.

The examination for the Certificate of Proficiency in Psychological Medicine will be held at Bethlem Hospital on the 18th of July, 1893, at 11 o'clock a.m. The examination for the Gaskell Prize will take place on the following day at the same time.

For further particulars, apply by letter to the General Secretary, 11, Chandos Street, Cavendish Square, W.

EXAMINATION IN SCOTLAND.

The Examination for the above certificate in Scotland will take place

						ORAL.	WRITTEN.
Edinburgh Royal Asylum	...	...	...	...	...	July 21	} July 20.
Glasgow ...	...	...	...	...	...	" 24	
Aberdeen	...	...	...	...	...	" 22	

All at 10 a.m.

MECHANICAL MEANS OF BODILY RESTRAINT.

The Commissioners in Lunacy having in their regulation of April 9th, 1890, defined "mechanical means" of bodily restraint to be and include all instruments and appliances whereby the movements of the body or of any of the limbs of a lunatic are restrained or impeded, it cannot fail to be of importance to the superintendents of hospitals and asylums for the insane to know exactly what is understood by the Commissioners themselves to be included in this definition. Just before the Lunacy Act of 1890 came into force I wrote to ask whether they considered that soft padded gloves, fastened at the wrist and leaving the movements of the arms as a whole free, were to be considered as restraint under their definition. The answer was that they considered them "instruments" of restraint, the use of which must be recorded. At the same time I commenced to make use of a dress for patients of the class who are destructive at night to bed clothing or to night clothing, or who tend to constantly throw off clothing at night, and so are liable to the effects of exposure to cold, or who may have some wound upon which no ordinary dressing can be left without interference on the part of the patient, or who have a tendency to some forms of self-mutilation, or who are actively suicidal, and yet not fit to sleep in a dormitory, or who would be made worse if held by attendants—a dress in which the sleeves, instead of ending in an opening at the sleeves in the ordinary way, were prolonged beyond the extremities of the fingers, and the ends then closed. This did not in my opinion exercise any mechanical restraint on the patient, as all the *movements* of the limb and hand could be perfectly performed, while it had the advantage of preventing a great deal of unnecessary destruction of clothing, assisted materially in keeping restless and excited patients warm, and was often useful in surgical and in some suicidal and self-mutilating cases. The Commissioners who visited the hospital at various times have seen patients wearing these dresses, and have not considered that they came within the meaning of mechanical restraint, and, in fact, upon one occasion a Commissioner said to me, "You don't consider that restraint?" to which I naturally replied "No." At their last visit, however, they made the following entry in the report:—"This is not here recorded as restraint, but as it might be construed by our Board to come within the statutory meaning of restraint we consider it to be our duty to mention the matter." After a short interval in which no communi-

cation was received from the Commissioners I wrote for information as to the opinion of the Board, and received the following answer :—

Office of Commissioners in Lunacy,
19, Whitehall Place. 6th April, 1893.

Sir,—In reply to your letter of yesterday I am directed to inform you that when the copy of the recent entry in the Visitors' book of Bethlem Hospital was read at the Board meeting of the Commissioners the Board did not consider that the special kind of dress to which the Visiting Commissioners called attention came within the meaning of mechanical means of bodily restraint as defined by the Commissioners' regulation of the 9th April, 1890.

I am, sir,

Your obedient servant,
G. HAROLD URMSON,
Secretary.

It is, of course, important that if a dress of this kind be used for some cases, such as those I have referred to, care should be taken that the movements of the limb and hand should not be at all restrained, and in the event of shrinkage taking place after washing, with shortening of the length of the sleeve, it might happen that the limb or hand could not be fully extended or opened, and then the patient would be "mechanically" restrained. As some who have visited the wards of Bethlem Hospital have considered that such a dress as I have described, although perfectly harmless and often very beneficial to the patient, should be called mechanical restraint, I have thought it well to put on record this authoritative opinion of the Commissioners' Board. It will be noticed that padded gloves, though differing very little from the dress I have described, and leaving the arm, and in many cases the fingers, free to move in every direction, are dignified with the name of "instruments."

R. PERCY SMITH.

Obituary.

JOHN HITCHMAN, M.D., ST. AND.; F.R.C.P., LOND.; F.R.C.S., ENG.

Dr. Hitchman was born in 1815, at Northleach, Gloucestershire. Passing through the usual medical apprenticeship and the ordinary course of medical study in London, he obtained qualifications to practise in 1838. His work in lunacy began at Fairford, where he lived for a few years. He was singularly fortunate in his marriage to Miss Iles of that place, a union which was the source of great happiness to both of the persons concerned. Kind, sympathetic, loving, and beloved, she had a benign influence on the life of the deceased physician.

The most important part of Dr. Hitchman's life and work falls naturally into three periods—that spent at Hanwell, that in Derbyshire, and that in subsequent retirement.

Late in the morning of life he obtained the appointment as one of the medical superintendents of the large county asylum at Hanwell. This threw him into contact with Conolly, between whom and himself a lively friendship existed, and whom he always afterwards spoke of with warmth and affection. Whilst there he also did much useful pathological work, and made careful *post-mortem* examinations, at that time so generally neglected in institutions for the insane. He also gave courses of lectures on mental disease, which he delivered at Hanwell, and illustrated by clinical examples in the wards. In that work he was one of the early pioneers in this country. He also contributed a number of articles to the periodicals devoted to the subject of insanity, of which the most important, perhaps, was an attempt at a pathological classifica-

tion of mental diseases. At Hanwell he had as a colleague, or fellow medical superintendent, Dr. Begley, and their friendship was maintained for many years afterwards. Amongst other life-long friendships he made now was one with Dr. J. T. Arlidge, of St. Luke's Hospital, and subsequently of Newcastle-under-Lyme. After having held the appointment there for four or five years, Dr. Hitchman left Hanwell about the beginning of 1851, having been invited to take the superintendency of the Derbyshire County Asylum, which was being built at Mickleover, near Derby. In this way, he brought to a close a prospect containing great possibilities which proximity to the Metropolis offered to one who had entered so vigorously into scientific work as he had.

At the Derbyshire County Asylum he held office for about twenty-one years, and proved himself to be an able medical superintendent, a good administrator, and a humane physician. He started the new asylum well and maintained it in a high state of efficiency. His mental activity now took on a somewhat different phase. Although his reading in medical literature continued to be wide and varied he did not do so much now in original medical investigation, and published only a few articles in the contemporary medical periodicals on his special subject, and these chiefly addresses. But he gave addresses also on the scientific raising and breeding of cattle, and took an important part and place in the Derbyshire Agricultural Society. Latterly, also, he sought exercise and air in coursing, and was an enthusiastic admirer of the sport and of the hounds, in whose honour he wrote a spirited hunting song. Dr. Hitchman also made other contributions to the periodical general literature of his time. He took a good place in the county, and was highly esteemed as a personal friend by many members of his committee. In 1855 Dr. Hitchman took the F.R.C.S., Eng.; in 1858 the M.D., St. And.; in 1859 the M.R.C.P., Lond.; and in 1871 he attained the distinction of being elected a Fellow of the Royal College of Physicians of London. In 1856 he was President of the Medico-Psychological Association. The annual meeting that year was held at Derby, and many years afterwards one who was present spoke of the striking eloquence of Dr. Hitchman's presidential address on that occasion. Having become subject to frequent vertigo and for other reasons he thought it well to retire from his post in Derbyshire. This he did in 1872, and was awarded a well-deserved pension, on the recommendation of the Justices forming the Committee of Management of the asylum, who were very loth to lose his services.

For some three years he now settled in Cheltenham, and then went to live at Fairford, Gloucestershire, where Mrs. Hitchman had many relatives, and where he spent the rest of his life. Here, in 1884, he lost his wife by death, an event which to him was a source of profound grief, and the beginning of greater failure in health. In still later years his afflictions confined him more and more to home, and, in April, 1893, the end came. During this retirement Dr. Hitchman was not idle. He read much, and wrote much, and chiefly on points of controversial theology. Besides many minor contributions on this subject, and public addresses, articles, or published letters on various matters of social interest, he published an important theological work. This he altered, and brought out in a much fuller and different form in 1887, under the title of "*Christianity versus Ecclesiasticism*," (Williams and Norgate, London, 1887). This was the most important literary effort of his life, embodying the results of much thought, and conclusions wrought out by many an inward contention and victory; a well-written work, in which the results of scientific research are skillfully brought to bear on the solution of burning questions.

Dr. Hitchman was a man of good presence and delivery, an able speaker, rising without effort to eloquence, and an effective public reader or lecturer. He was a generous, warm-hearted friend and comrade, full of a large and charitable spirit, and possessed of wide sympathies. His chivalrous nature occasionally led him to write perhaps just a little impulsively when he thought any friend of his had been slighted, or that what he held to be supremely

weighty and important had been treated with indifference or neglect. He belonged to one of the most excellent types of Asylum Superintendents, was a well-read physician, of wide and varied culture, and one who obtained distinction not only in his profession, but also in other spheres.

W. J. M.

Appointments.

BOND, C. H., M.B., C.M.Ed., appointed Pathologist and fourth Assistant Medical Officer to the London County Asylum, Banstead.

CULLINAN, H. M., L.R.C.P. & S.I., appointed Pathologist and third Assistant Medical Officer to the Richmond Asylum.

HILL, E., L.R.C.P.Lond., M.R.C.S., appointed second Assistant Medical Officer to the Leavesden Asylum, King's Langley.

MILLS, JOHN, M.B., appointed Assistant Resident Medical Superintendent of the Ballinasloe Asylum.

OFFORD, J. A., L.R.C.P., M.R.C.S., appointed Assistant Medical Officer to the Dorset Asylum.

ROBERTSON, W. F., M.B., C.M.Ed., appointed Pathologist to the Royal Asylum, Morningside.

STANSFIELD, T. E. K., M.B., C.M.Ed., appointed Senior Assistant Medical Officer to the London County Asylum, Claybury, Woodford.

SYMMERS, W. St. C., M.B.Aber., appointed Pathologist to the County Asylum, Prestwich.

WILLS, E., M.D.Lond., M.R.C.P.Lond., appointed second Assistant Medical Officer to the London County Asylum, Claybury, Woodford.

NOTE.—The Attendants' Handbook, issued under the authority of the Medico-Psychological Association, will be published in July.

THE JOURNAL OF MENTAL SCIENCE.

[Published by Authority of the Medico-Psychological Association
of Great Britain and Ireland.]

No. 167. NEW SERIES,
No. 131. OCTOBER, 1893. Vol. XXXIX.

PART 1.—ORIGINAL ARTICLES.

Presidential Address delivered at the Fifty-Second Annual Meeting of the Medico-Psychological Association, held at the Palace Hotel, Buxton, 28th July, 1893, by J. MURRAY LINDSAY, M.D.

GENTLEMEN,—The difficulties connected with the selection of a suitable subject for the Presidential Address of our Association, which is holding its 52nd annual session, are increasing year by year, for it can readily be imagined that almost every conceivable subject has been well threshed out by my numerous predecessors. After the careful and elaborate work of Dr. Hack Tuke and others there is very little to add to the history of psychological medicine.

The history and work of our Association have also received of late years considerable notice at the hands of previous Presidents. I propose to continue the history up to date, to touch on some points in connection with the organization and work of our Association, to offer some free criticisms on lunacy administration, indicating some alterations and reforms in the lunacy laws and the management of asylums, drawing to some extent upon a somewhat varied and moderately long experience. In this way I hope to rouse some slumbering spirits and to stimulate discussion which I trust may serve some useful purpose.

In 1861 Professor T. Laycock, in his Presidential Address, in speaking of the objects and organization of our Association, referred to its shortcomings and defective organization. But we have moved forward since then, and there can be no doubt that the Medico-Psychological Association, a title adopted in 1866 under the presidency of Dr. W. A. F. Browne, Lunacy Commissioner for Scotland, whose memory I revere and warmly cherish, has progressively advanced in

certain directions, especially during the last five or ten years, in proof of which, if any were needed, I would point to the work of its various Committees, to the successful efforts with regard to the study of mental diseases and clinical teaching of insanity so ably advocated by Dr. Maudsley, Dr. Clouston, and others, a subject now made compulsory and adopted by several teaching and examining bodies, including the London, Edinburgh, and Victoria Universities, to the numerous lectures now being given in asylums, to the certificate granted in psychological medicine, the training and certification of attendants and nurses, the handbook for attendants, and to the excellent scientific work now being done by Dr. Bevan Lewis, Dr. Wigglesworth, Dr. Edwin Goodall, and other pathologists and assistant medical officers in some of the larger asylums, thereby helping to remove a long standing reproach levelled at asylums that very little or no really scientific work was done in them. I would also point to the editorship of the *Journal*, which was never in better hands and never better conducted, in my recollection at least, for our Association has good reason to be proud of its present Editors.

Formerly it was not an unusual thing to hear ourselves sneeringly called "mad doctors," who in the opinion of an ignorant and prejudiced public were considered a set of specialists only half-educated. I had occasion some time ago to make an investigation with regard to the qualifications and distinctions of medical men engaged in our specialty with a result which must be considered very satisfactory. During my inquiry, which was confined to England and Scotland, with which countries I am best acquainted, I noted the number of men who had distinguished themselves during their student career at Medical Schools and Universities, and subsequently, when I was agreeably surprised to find that the proportion was wonderfully high, being higher in the English County Asylums than in the Borough Asylums, and as might have been expected the proportion was highly creditable in that industrious little country north of the Tweed. Our English private asylums and lunatic hospitals, whose management is so enlightened and liberal, can also show a very good record in this respect, for many of our most able and distinguished men are or have been connected with them. I venture without fear of contradiction to assert that there is no public service, such as the Army, Navy, or Poor Law Medical Service, which

contains a higher or even so high a proportion of men who have distinguished themselves. This should, once for all, dispose of the taunt occasionally thrown at us that our specialty is filled with and recruited by inferior men.

But whilst fully admitting that much has been done by our Association and members thereof, it must also be acknowledged that much still remains to be done, and the question may reasonably be asked, Has it done all it might have done? It is matter for regret that our Association has certainly failed to assert itself before the public; it has not carried the weight, and has not occupied the position it might legitimately claim. I have long been of this opinion, and I quite agree with Dr. Mercier when he says that "The Medico-Psychological Association should be the ultimate authority on all matters connected with insanity," and he adds, "But none of them could claim that the Association occupied that position."

Our Committees are now engaged in doing some good work, but some time should surely be found for such other practical and at least equally important matters as increasing the weight and authority of our Association before the public, creating an increased interest on the part of a larger number of our members by keeping fully in touch with the times and adapting our rules to altered circumstances, thereby encouraging a much larger attendance at our quarterly and annual meetings. For, gloss it over and ignore it as we may, it cannot be denied that there is smouldering under the surface a certain amount of discontent and dissatisfaction with some points in the management of the Association. I do not mean to say that this is altogether fairly attributable to the doings of the Council, for I believe the fault lies in a great measure at least with the members themselves, but the indubitable fact remains that, considering the largeness of the membership, now numbering nearly 500, a comparatively small share is taken by the provincial members in the proceedings of the Association, and the meetings, quarterly as well as annual, are not so largely attended as it is desirable they should be.

Whatever may tend to promote membership, to encourage an interest in the Association, to strengthen confidence in the Council, and to increase the attendance of provincial members at the meetings is deserving of our serious consideration. In this connection I may refer to the proposal made in June, 1892, to allow members to vote by proxy. I

am one who favours proxy voting, if properly safeguarded, but as many of the members feel that there are serious objections to adopting it, perhaps not without good reason, I am prepared to accept the proposal in the new rules (Chapter IV., Rule III.) that "Any Member unable to attend an annual or special meeting of the Association may communicate his views in writing to the General Secretary, and demand that they be read at such meeting when the subject to which they refer is discussed." This rule, along with Rule XV. of the same chapter, would appear to be a reasonable and fair compromise which, it is to be hoped, will be generally accepted, even by those favourable to proxy voting.

Another mode which, in my opinion at least, might probably tend to create a greater interest in the proceedings, and a greater feeling of responsibility to the Association, as well as to result in a better attendance, would be by payment of railway expenses to members of Council resident at a greater distance than 50 miles from London. When our rules were undergoing revision in 1879 the principle of paying railway expenses to members of Council who resided 50 miles beyond London was embodied in a proposed rule, Chapter IX., which, however, met with strong opposition, and an amendment moved by me was lost by a large majority.

Nothing daunted nor disheartened by this defeat, having frequently had occasion to realize the fate of reformers and being not unaccustomed to find myself occasionally in a minority, which is sometimes eventually converted into a majority, I still adhere to this principle as just, judicious, and sound, if financially practicable. The principle of payment of railway expenses to members of Council being representatives of branches has since been adopted by the British Medical Association at the annual meeting at Leeds in 1889, the agitation for this reform having taken five years for its successful accomplishment.

One of the chief objections to the proposed payment was that it would ruin our Association. This objection can best be answered by our worthy Treasurer, and ought to be met in other ways. If the Association funds do not at present admit of meeting such legitimate payments, it may become a question whether the annual subscription should be raised, or some other means taken to obtain additional funds. Perhaps the appointment of a Finance Committee might lead to some economy or reduction in the spending department.

I have indicated one way in which, in my opinion, our Association affairs may perhaps be improved by the appointment of a Finance Committee to regulate our finances and supervise the spending department.

There is yet another way, by the appointment of an Administrative Committee, in which I think much practical good might be effected. We are piling on the agony by way of examinations, and now requiring, or at least expecting, from assistant medical officers and attendants a higher standard of special qualifications.

But what, I may ask, is the Association doing to improve their position and emoluments? Very little, it seems to me. I am well aware that the salaries of assistant medical officers and the wages of attendants have here and there gone up, but without much encouragement or help from the Association.

There are other practical matters which might be relegated to an Administrative Committee, such as

(1) The inadequacy of the medical staff in asylums, and necessity of additional assistant medical officers and qualified clinical assistants, as pointed out by Dr. Yellowlees in his Presidential Address in 1890.

I am disposed to think that the Care and Treatment Committee, in their Report of 1891, rather under than over stated the proportion of assistant medical officers needful in asylums, considering the margin that should be allowed for absence, necessary leave and relaxation, extra work, illness, or other necessity. I think the proportion should not be less than one medical assistant for every 250 patients in a county asylum receiving both recent and chronic cases, if the work is to be thoroughly done and accurate records kept.

With regard to the tenure of office of assistant medical officers, a new departure has lately been taken by two county asylums on the occasion of filling up vacancies, the period of appointment being limited to three years.

"The Hospital" of 6th May last, in referring to this subject, says:—"This limitation of the term of office is probably destined to become general in asylums, but we think a three years' limit somewhat short." I am inclined to agree with the latter remark as to a limit of three years being rather short.

(2) Proportion of attendants to patients in pauper asylums. This varies considerably in different asylums, as much as from 1 attendant to 8 patients up to 1 to 14½ for

men; and 1 nurse to 10 patients up to 1 to 18 for women, according to the latest available return, prepared in March, 1890, by Dr. J. A. Campbell, which showed a remarkable variation to this extent. It is manifest that such a disproportion can hardly be considered consistent with efficiency. The proportion of 1 day attendant to 10 patients in a county asylum may, by some, be considered a liberal allowance, and is, I believe, considered a fair and adequate allowance by the Lunacy Commissioners, but when a fair margin is deducted for illness, absence, leave, night or special duty, the actual proportion of 1 to 10 is seldom maintained. The proportion of 1 to 14 or 1 to 18 cannot be considered adequate, and yet comparisons are often made by County Council and Union Authorities between one asylum and another without taking into account such important factors in calculating the weekly maintenance rate, to reduce and keep down which there is too often a questionable and unhealthy rivalry.

(3) Attendants' hours of labour and duty. This is a very difficult and expensive question, which will, in all probability, sooner or later, come to the front, and be forced upon our consideration, for it is very likely that the eight hours' labour wave, which is rolling along, will in time surround asylum attendants, whose long hours on duty, 14 hours, from 6 a.m. to 8 p.m., have often been the subject of remark and pity by asylum medical officers. The only effectual remedy for this would be an addition to the staff of attendants, so as to obtain shifts and shorter hours, involving, however, a considerable outlay and an additional burden on the ratepayers, which they might be rather reluctant to incur.

I believe that Dr. T. W. McDowall has given considerable attention to this subject, and it will be interesting to know from him what practical conclusions he has arrived at.

It is well-known that the work of all attendants is not equally hard and trying, and it is a matter well worthy of consideration whether special service, for example, in infirmaries and other wards for the epileptic, suicidal, and most trying class of patients, should be recognized by increased remuneration or in other ways.

There is another way in which their position might and should be improved, and their comfort promoted by the erection of separate blocks or homes for attendants and nurses, as at some of our large asylums, and now becoming so general in connection with hospitals and infirmaries.

(4) Greater accuracy and uniformity in asylum farm accounts, which do not appear to be affected by agricultural depression, but almost invariably show a wonderful balance to the credit of the farm account and a high proportion of profit unknown to the British agriculturist.

(5) The better equipment of county asylums by providing pathological rooms for research, a gymnasium for exercises and drill, swimming bath, Turkish and other baths for certain classes of patients.

(6) The best means of interesting, brightening, and cheering patients on Sundays by the introduction of pleasant musical Sunday afternoons, and in other ways.

With regard to the regulations for the nursing certificate examination, it seems to me there is room for improvement. The mode of appointment of the assessor is open to objection, the selection should not be in the hands of the asylum superintendent, subject to the approval of the President, but in the hands of the Council or the Association, in which case the selection could be made at a quarterly meeting. This would tend, in my opinion, to enhance the value of the nursing certificate in the eyes of the public and of the attendants themselves.

There is room, too, for improvement in the questions placed before candidates, for some rather indefinite and too professional questions, I think, are occasionally set by those attempting to aim too high. Care should be taken not to disgust or terrify attendants by high sounding and too strictly professional questions.

Another questionable point in connection with the nursing certificate examination is the number of marks required to pass, viz., two-thirds, or 66 marks out of the possible total of 100. Is this proportion not too high? It seems to me that it is higher than the pass-rate for medical diplomas! Judging from the number of attendants who pass, it is difficult to avoid arriving at the conclusion that the system of marking has been somewhat elastic and accommodating.

With regard to the training of nurses, a suggestion was made by Mr. Snape, M.P., that Parliament be asked to authorize County Councils to pay for the training of nurses. If his suggestion were carried out, our Association funds might then be relieved of the expenses connected with the training and certification of nurses, including the railway expenses of examiners or assessors. An application was made by the asylum of which I am superintendent to the

Technical Education Committee of the Derbyshire County Council for a grant of money to defray the expenses connected with ambulance and first aid lectures to attendants and nurses, the result of which application was that we succeeded in obtaining a grant of £6 6s. for this purpose.

In connection with the revision of the rules the important question of female membership of the Association will no doubt engage your serious consideration, for it is an entirely new departure and ought not to be decided without full opportunity for discussion, the rule on this subject being made sufficiently clear so as to leave no room for doubt. For my own part I think that we should keep abreast of the times, and I doubt whether it is advisable to shut our doors against the admission of legally qualified women, as I believe there is a legitimate field of usefulness open to them in the female departments of some of our large asylums having several assistant medical officers, and where suitable arrangements could be made for resident medical female assistants. Such appointments under certain conditions and properly safeguarded would, I think, be calculated to exert a beneficial influence upon the staff of nurses, and probably be attended with some advantage to the female patients.

Indeed, I cannot see how in common fairness or on what valid ground legally qualified women can be excluded from membership if they wish to join the Association on the same terms and subject to the same rules as men, and do not expect any exceptions to be made in their favour. If freedom of discussion is likely to be threatened or marred by the presence of women, I should then be inclined to doubt the advisability of their election and to think that too great a sacrifice was being made for female membership.

Quite recently I had an application from a legally qualified woman with good credentials for the post of resident clinical assistant, without salary, at the Derby County Asylum, but for a variety of reasons it was impossible to entertain it.

After three years' acquaintance with the new Lunacy Act, which came into operation in May, 1890, I am not enabled to look upon it with more favour than at first. Each year's experience of it only leads me to join in the general condemnation of it by asylum medical officers as in many respects a piece of hasty, vexatious, and ill-judged legislation, not only attended with little or no benefit to the insane poor, but depriving them to a considerable extent of the attention of the medical officers, whose time is now largely

taken up with increased clerical and reporting work in order to satisfy the requirements of an unnecessarily exacting, complicated, and confusing Act, the chief redeeming feature of which is the consolidation of various previous enactments. If the effect of the said Act had really been, as intended, to provide additional safeguards and protection to the public, or to confer substantial benefit upon the insane by facilitating early treatment, asylum medical officers would assuredly have been the last to condemn it, instead of which, they are now to a large extent converted into recording and certifying machines, a considerable portion of their time being now frittered away in writing useless reports, signing certificates, and other clerical work, to the exclusion of work attended with more real benefit to the patients in the direction of promoting their cure and amelioration.

There is no need, in my opinion, to fear any injustice or detriment from prolonged or unnecessary detention; on the contrary, the danger would rather appear to be in the tendency to premature discharge, which the public and union authorities may some day realize after suffering from its effects.

One of the chief objects of the new Lunacy Act was said to be to secure speedy treatment. Has this object been attained? I think the answer must be in the negative, as Dr. Maudsley and others have clearly shown.

Another principal object of the Act was to furnish safeguards against the improper confinement of persons as lunatics. Was there any real danger of this happening either in private or public asylums? I think not, for no proof was forthcoming to this effect, and no authenticated case could be brought forward. One result in the opposite direction and of a questionable nature has been the tendency of the Act to cause the premature discharge from asylums of patients not thoroughly recovered, some of whom relapse and soon return to the asylum at an increased cost to the unions.

A further object was to enable pauper asylums to make provision for private patients at moderately low rates of board. There can be no doubt that some provision of this kind is much needed, but I am not aware that any county has yet taken advantage of the merely permissive sections (66 and 67) of the Act of 1890 relating to this subject. Asylum Visiting Committees are naturally and not un-

reasonably reluctant, when not compelled by statute, to apply to County Councils for funds to enable them to embark upon what, at the first onset at least, must necessarily partake of the nature of a speculation, for it must be expensive to start with, and may not be self-supporting for some time. It is very desirable, however, that some means should be found of meeting this recognized want, either partly at least from County Council funds, or in some other charitable way.

Another recognized want is some provision for young idiots and imbeciles in connection with county asylums, or conjointly with other counties, so as to give them the benefit of special training and care, for assuredly a lunatic asylum is not the best place for young idiots and imbeciles, some of whom at least are to a certain extent educable and improvable.

The Act still leaves something further to be desired in the way of protecting medical practitioners in the performance of their duties, for Section 11 has been found not to be sufficiently protective. It is not at all to be wondered at that many medical practitioners still decline to have anything to do with signing lunacy certificates, and in thus declining I think they act wisely for their own pockets and peace of mind.

It was only the other day that a medical practitioner, Dr. Frederick J. Smith, in referring to the case of Morton, the Hackney murderer and suicide, in a letter which appeared in the "British Medical Journal" of 1st July, stated that he was consulted about this case seven months previous to the murder, diagnosed mental disturbance, and advised either an attendant at home or immediate removal to an asylum.

Dr. Smith remarks: "At that date insanity was obvious, but such is the unprotected state of the profession under our lunacy law that I did not feel inclined to run my head into a noose by signing a certificate."

Dr. W. Orange draws attention to Morton's case in a letter which appeared the following week in the "British Medical Journal," and refers to remarks recently made by Mr. Justice Grantham, at the Central Criminal Court, at the trial of Townsend for threatening the life of the Prime Minister, "that it was a great misfortune that, in consequence of the disinclination of doctors to sign certificates—although he did not say that such disinclination was not quite justifiable under the circumstances—there were a

number of persons at large who ought to be under control and care."

The abolition of the power of an officiating clergyman and an overseer or relieving officer to sign an order for the admission of a pauper patient has been attended with decided disadvantage in at least one county, Derbyshire, and probably also in other counties, by delaying speedy treatment, retarding the removal of the patient to an asylum owing to the difficulty in obtaining the signature of a justice, for the long distances occasionally to be travelled before obtaining the justice's order and the refusal of some justices to have anything to do with signing lunacy orders (although every justice in Derbyshire is authorized to sign such orders) caused great inconvenience which is also attended with increased cost to the unions, and as far as I can see with no real benefit to the poor lunatic, on the contrary. In Derbyshire the old plan of the workhouse chaplain or officiating clergyman and the relieving officer—who were usually better acquainted with the patient's case than the justice—being empowered to sign the admission order worked very well, for I have never known a single instance of any evil or drawback arising from such procedure.

Since this power on the part of the officiating clergyman and relieving officer has been abolished it seems to me very advisable that the Lord Chancellor should avail himself of and put in operation the 25th section of the Lunacy Amendment Act of 1891 (54 and 55 Vic.), empowering the Chairman of the Board of Guardians to sign orders for the reception of persons as pauper lunatics in institutions for lunatics, thereby conferring powers of Justice of the Peace on such representative of the Board of Guardians.

I am among those, the large majority, I believe, who have hitherto failed to see any benefit to the lunatic or the public from the operation of Section 38 with its ten sub-sections, especially Sub-Section 4, relating to the duration of reception orders, the chief effect of which is to add to the already excessive amount of reporting and clerical work imposed on the medical officers, without any compensating advantage to the lunatic or the public.

Under the present system the clauses (Sections 25 and 26) relating to the reception and detention of chronic lunatics and imbeciles in workhouses do not work smoothly or efficiently so far as relief to the overcrowded asylum is concerned, experience showing either that workhouses are

not adequately provided with suitable arrangements for such cases, or the workhouse authorities will not take the least trouble with the patients, who, though comparatively harmless and inoffensive but requiring attention and looking after, are frequently sent back to the asylum after a short residence in the workhouse.

Unfortunately of late I have had ample experience of this, that little or no relief to the overcrowded asylum need be looked for from workhouses. I believe that other superintendents have had a similar experience. For the present, however, I fear there is no remedy for this state of matters until the practice in England is assimilated to that of Scotland by extending the Government grant of 4s. a week to Boards of Guardians for pauper lunatics, chronic, imbecile, idiotic, and demented cases in workhouses, or boarded out under arrangements to be approved by the Lunacy Commissioners; or until workhouses are placed under one controlling authority, the County Council, and all classes of the poor, whether sane or insane, are brought under one and the same jurisdiction, which I believe would also be attended with decided advantages in other directions.

When the Lord Chancellor was amending the Lunacy Laws it is matter for regret that such a golden opportunity was lost of effecting a long-looked-for and much-needed reform, a reform contemplated in the Act of 1890, and referred to in strong terms by the Select Committee of 1878 in their Report. I refer to the advisability of strengthening the Lunacy Commission by an increase of the medical staff, and by an amalgamation of the Lunacy Departments, as provided in Section 337, which empowers the Lord Chancellor to effect such amalgamation. The explicit and significant remarks of the Select Committee made fifteen years ago are applicable with even greater force now, considering the large increase during this period of about 23,000 in the number of lunatics, idiots, and persons of unsound mind under official cognizance in England and Wales, who, on 1st January, 1892, numbered 87,848.

The conclusions and suggestions of the Select Committee of 1878 may be thus summarized:—

(1.) The best security against the undue detention of patients consists in personal examination such as that by the Chancery Visitors.

(2.) There seems no valid reason why the possession of property

should make any difference in the personal treatment of lunatics, or in the supervision exercised over them.

(3.) Either the Chancery lunatics, who number less than a thousand, have too much care bestowed upon them, or the others, who exceed sixty-five thousand, have far too little.

(4.) The property might still be under the care of the masters in whatever way may be considered best; but it seems reasonable that all lunatics should be treated on the same system as far as admission, detention, supervision, and release are concerned.

(5.) Though it may be true that the lunacy of the majority of patients in an asylum is self-evident, yet it seems physically impossible that with the present strength of the Lunacy Commissioners minute supervision of those who require it can be efficiently exercised.

(6.) It may be that by some amalgamation of the two departments waste of power in visiting might be obviated, and the delay and expense frequently attending the discharge of Chancery lunatics be avoided, and stricter supervision exercised over single patients, who are said to require it more than others, and yet are only visited once a year by the Commissioners, and for visiting whom there is no statutory obligation.

It is very remarkable, and not easily explained, that, notwithstanding the great increase in the number of the insane and the additional work thrown upon the Lunacy Commissioners in consequence of this increase and owing to recent legislation, the number of the Lunacy Commissioners—three medical and three legal—has remained the same since 1847, when the number of lunatics, idiots, and persons of unsound mind was less than a fifth of the present number. In the Report of the Metropolitan Commissioners in Lunacy, 1843 and 1844, the names of seven medical and four legal Commissioners are given, but whether all or only some of them were Visiting Commissioners I am unable to say.

Although the work of the Commissioners has greatly increased, and their duties have become more arduous compared with former years, their work has not been recognized by Government as it ought to have been, they have received no additional remuneration, whilst the salaries of asylum medical officers have been gradually rising, until both in England and Scotland some superintendents are better paid and making larger incomes than the English Lunacy Commissioners.

I am at present most concerned with the foregoing conclusions 3 and 5 of the Select Committee of 1878, with which I believe all those most conversant with the subject

will entirely agree. It cannot be denied that the Lunacy Commission has long stood in need of being strengthened, that it is certainly undermanned if the work of visitation and inspection is to be thoroughly done and with sufficient frequency, for it is obvious that the visitation of public asylums and single patients by the Commissioners only once a year, as required by statute, is insufficient. There ought to be at least two visits yearly to public asylums, as in Scotland and Ireland.

At a time when the Lunacy Commission requires to be strengthened, the removal of such a highly distinguished physician as Dr. T. Clifford Allbutt to the more congenial sphere of usefulness of Regius Professor of Physic in the University of Cambridge is cause for regret, and I feel sure none regret his loss to the Department of Lunacy more than asylum medical officers.

The Lunacy Commission might be strengthened in three ways, firstly, by amalgamation of the two lunacy departments as suggested by the Select Committee, the Chancery Visitors, who are probably not overworked like their brethren on the Commission, might be able to devote some of their leisure time to help the Commissioners; secondly, by an addition to the medical staff of the Commission by the appointment of Assistant or Deputy Lunacy Commissioners as in Scotland, which was recommended 33 years ago by the House of Commons Select Committee of 1860; and, thirdly, by the removal, on the occasion of a legal vacancy as opportunity offered by retirement or death, of the present anomaly of barristers writing reports and expressing opinions on medical matters requiring a special training, and the substitution of a visiting medical for a legal Commissioner, thereby assimilating the practice to that of Scotland and Ireland, where it works very well. One legal member on the Lunacy Commission would probably be found quite sufficient for all necessary purposes of advising the Board.

I am in thorough accord with Dr. H. Rayner, who, in his Presidential Address in 1884, referred to the necessity of strengthening the Lunacy Commission. It stands to reason, and ought to be sufficiently obvious to ordinary intelligence, that if it required six Commissioners in 1847 to supervise 16,634 lunatics and idiots in England and Wales, it surely required more than six Commissioners to supervise five times that number, 87,848 in 1892!

The same rule of dual visitation in England by a legal

and medical Commissioner has been in operation for half a century since 1843. I have hitherto failed to see any advantage in such dual visitation, which is contrary to the practice prevailing in Scotland and Ireland, where more frequent single visitation by a medical Commissioner answers very well indeed, and is attended with greater advantage to the insane and to asylum management than the antiquated English system, which is out of touch with the times and is contrary to the report of the Select Committee of 1860 which recommended single visits by one Commissioner. Indeed I see no need of and no advantage whatever in the visitation of asylums by barristers, who are not supposed to be competent to express opinions on medical matters, and who would be the first to resent intervention by medical men in their legal affairs.

If the Lunacy Commission could be strengthened and brought into touch with the times in the way indicated the visitation of asylums could be more frequent and the supervision of patients more thorough, for the Commissioners, relieved from the over-pressure of routine duties and from over-strain, would be enabled to approach their visitation duties with increased calm and less impatience, for even Commissioners are but human and are not free from the weaknesses incident to our common humanity. It occurs to me that if the Commissioners were not so over-worked and were subject to less strain, the tone and spirit of their reports written at asylums would occasionally be very different and would at times be more free from ill-considered and petty fault finding. It is not by irritable effusions and needless petty fault-finding nor by persistent adherence to antiquated fads that their reputation will be maintained or their authority increased.

County Councils have now been sufficiently long established and so far settled down as to enable us to form some opinion of their working and their influence upon asylum administration. There can be no doubt that the prospect of a Local Government Bill, which was for years dangled before the face of the electors by both parties in the State, had the effect in many counties of retarding necessary improvements in and additions to asylums, thereby avoiding expenditure and promoting so-called economy. And it is equally certain that their predecessors in office, the county magistrates, of whose enlightened and liberal management of asylums I desire to speak with all respect, naturally left considerable arrears in the way of necessary improvements to be carried

out by their successors, the County Councillors. Whilst I believe that County Councils are now beginning to better understand asylum wants and the requirements of the insane, and showing a disposition, though somewhat tardily in some cases, to take an enlightened and comprehensive grasp of their new duties as regards asylum administration, I still think that the process of education is not yet complete, and therefore it seems to me to be matter for regret that so few visits are made by County Councillors to other asylums for the purpose of comparing notes and seeing what is done elsewhere. Such visits by County Councillors to other asylums should be encouraged, and it is to be hoped that they will in the future be more frequent.

Considering the few years County Councils have been in operation, I think there is on the whole every reason to be satisfied with the progress made and with their administration of county asylums, which will eventually derive greater benefit under their *régime*, for, fortunately, there can be little doubt that more money has of late years been spent upon asylums than for years previously.

If English County Asylums are to continue to maintain the deservedly high reputation so long enjoyed by them they will have to forge ahead and look to their laurels, for Scotland is assuredly in advance with regard to lunacy administration, whilst it must be admitted that Scotch asylums are second to none.

In Derbyshire we are particularly fortunate in having an excellent County Council, by whose hard working committees much good and practical work has been done and many improvements carried out. In illustration of this I need only allude to the excellent work done by the Finance, Technical Education, Public Health, and Asylum Committees, who have successfully endeavoured to progress and keep in touch with the times.

As a model of efficiency and thoroughness of details in the working of asylums, combined with liberality and consideration to the staff of officers and attendants in the matter of pay, pension, and leave, I would point to the London County Council as in the front rank in these respects, so far as I am able to judge. I would also desire to embrace this opportunity, as an old officer of Hanwell Asylum, of expressing my grateful recollection of the liberal and considerate spirit always shown by the Visiting Justices towards the asylum staff. This I always considered one of the great features of

Hanwell, and it is pleasing to me to note that the management of my old asylum by the London County Council is still characterized by the same considerate spirit.

There is one subject, in conclusion, to which I may be permitted to make a passing reference—I allude to the important question of superannuation. This subject is a very long story, having engaged the attention of the Association from time to time during the last 33 years, Dr. Bucknill, in his Presidential Address, having, as far back as 1860, made some very forcible and appropriate remarks on the question of pensions. At the annual meeting in 1863 a Committee on Superannuation was appointed, consisting of Dr. Lockhart Robertson, Dr. J. Kirkman, Dr. Sheppard, and Dr. Maudsley. Dr. W. Wood, in 1865, in his Presidential Address, also referred to the question. At the annual meeting in 1879 some superannuation resolutions I brought forward were carried; but a compulsory retirement resolution, proposed by me, was lost at the meeting, although I stated that of the replies I had received, 79 per cent. from England, 94 per cent. from Scotland, and 82 per cent. from Ireland, were in favour of the resolution. I may mention that this principle of compulsory retirement after a certain age has since been adopted by the Northampton County Council in their asylum pension scheme; it is the rule in the Government service, and would most likely be adopted in any general pension scheme which may hereafter be framed for asylums.

Another principle I then advocated, of transferred service, from one county to another, of not less than three years' duration, counting towards pension, has since been adopted in the Police Superannuation Act. This principle was also taken up and advocated on behalf of asylums by the Parliamentary Committee of the British Medical Association, and through that Committee brought under the notice of Government and Parliament by Dr. Farquharson, M.P., and Sir W. Foster, M.P., to whom our best thanks are due. At the annual meeting in 1882 I again returned to the charge, with the result that resolutions were passed drawing the attention of Government to the necessity of placing the question of superannuation on a more certain basis than at present, and instructing the Parliamentary Bills Committee to consider the best mode of giving effect to the resolutions. At the annual meeting in 1887 the subject was again referred to.

Such is a brief account of the history of this question, and

it may now be asked, Where are we ; how much further has this question advanced ? Well, it has certainly advanced and reached an important stage, for a fair and liberal asylum pension scheme has been adopted by the Northampton County Council, the only County Council, so far as I know, which has yet adopted a special asylum pension scheme, although I am aware that another County Council Asylum Committee, for the West Riding, prepared an excellent asylum pension scheme, with report, which was nearly carried at the County Council meeting, and was only lost by a small majority. I believe that a few other County Asylum Committees have considered the question and prepared asylum pension schemes, which, however, have not yet received the sanction of the County Councils.

It is the permissive principle and the uncertainty with regard to pension which are considered by the staff of asylums to be the real grievances, on account of being so unsettling and attended with suspense and anxiety, and even in some cases involving considerable hardship.

In my opinion a reaction has set in of late in favour of superannuation, and I am disposed to think that the present is a favourable opportunity for bringing the subject before the notice of the County Councils Association, in the hope that within the lines of the Local Government and Lunacy Acts they might be willing to consider and frame a special pension scheme applicable to county asylums.

In connection with this subject it is noteworthy, and must be considered very satisfactory, that County Councils, in the matter of superannuation, have not receded from, but are advancing on the lines of their predecessors by following the spirit and letter of the Superannuation Clauses of the Local Government and Lunacy Acts, in proof of which the following significant fact may be mentioned, that of five asylum medical superintendents pensioned by County Councils, being the last five medical superintendents who have retired on pension, four received the maximum retiring allowance of two-thirds, and one received a half of the total value of office, including salary and allowances.

Before leaving the question of superannuation, I feel it to be a pleasant duty to refer to the kindly, considerate, and graceful recognition of the claims of asylum officials to superannuation allowances, warmly expressed by the Lunacy Commissioners in their 45th Report for 1890, who speak strongly in favour of granting retiring allowances, and

offering adequate remuneration as a means of attracting well qualified persons to the service of asylums and retaining them therein, when, by the experience they have gained, their service has become valuable.

As far as I am aware, our Association has not expressed any gratitude or passed any vote of thanks to the Commissioners for this timely expression of their opinion and their kind assistance in promoting our cause. If so, I think the Association has been rather remiss, and I trust that before this annual meeting draws to a close some member will propose a cordial vote of thanks to the Lunacy Commissioners, who are certainly entitled to our gratitude in this matter.

*The Out-Patient System in Asylums.** By Dr. F. ST. JOHN BULLEN, Assistant Medical Officer, West Riding Asylum, Wakefield.

The object of the paper to be now read is to evoke discussion on certain questions connected with the above scheme. Inasmuch as the system has received but a limited trial in this country, but few facts concerning its actual working are to be expected as yet. It is, however, deserving of consideration in this its embryonic period. An out-patient clinique was started at the Wakefield Asylum in January, 1890, and also adopted at the other West Riding Asylums. I can only speak of the results in the first-named institution:

The total number of cases there treated up to the present amounts to 116. Out of the number recommended 20 have proved unfit for treatment. In 16 the condition has been alleviated; in 12 recovery has occurred (I should state that the small-pox epidemic in the West Riding, which obliged us to close our doors to out-patients, seriously lessened the number of applications). Of the remainder, several continued under the care of their own medical men, advice being tendered; 23 ceased to attend, and 14 were admitted; 27 are still on the books. I would add that many patients were unable to follow out treatment, by reason of their poverty and inability to attend on account of leaving their daily

* Paper read at the Quarterly Meeting of the Medico-Psychological Association, held at Liverpool, March, 1893.

work. A considerable proportion ceased to attend from such stress of circumstances.

So far it must be confessed that the results have not been over-promising, but before condemning the practicability and efficacy of the scheme it is necessary to carefully review and, where needed, revise the working and conditions of the system.

At the outset one would ask, Is an out-patient clinique needed? Putting aside the question of practicability for the moment, and considering only that of a requirement to be met, it may be admitted that such system *is* needed. It is true that if medical men generally were fairly versed in mental diseases the need would be less, but at present it must be accounted probable that a large proportion of general practitioners have not an extensive acquaintance with this branch of medicine. Even had they, the time needed to deal with mental disorders, and the anxiety for their safe care, which an extended knowledge perhaps only increases, would prove a heavy tax upon them.

It is a matter of common experience amongst asylum physicians that many cases are certified and sent to asylums which might have been treated outside, and I consider that the effect of asylum residence on patients is not one of un-mixed benefit. Nowadays, when our institutions have so many of the comforts of home (and, indeed, injudiciously, in some instances are furnished with comparative luxury), there is a danger of depriving the patient of a salutary dread of loss of liberty and domestic life, and of diminishing his sense of personal responsibility to the community. In other words, there may result a tendency towards pauperization, and it is far too frequent to hear a patient on discharge to refer jocularly to a possible return.

Hence I think that a struggle should be made to treat patients outside the walls of an asylum and preserve to them their sense of responsibility and freedom, cultivating rather a spirit of opposition than one of subjection, which latter, forcible removal from home and detention elsewhere, is liable to breed.

The stigma attaching to those who have had an attack of insanity is, of course, much less noticeable amongst the lower classes of society, but even here I think that fairly marked differentiation exists between cases treated without and within the asylum, apart from the relative seriousness of the attack. And, however false such may be, yet so long

as the patient's welfare is benefited by the fiction, it is due to him to essay home treatment.

Thus it appears justifiable to argue that there is some indication for a system of out-patient treatment of the insane to be tried.

The next question to be discussed is that of the practicability of the scheme.

Theoretically, the difficulties and objections are not few, neither are they lessened in practice. Such are connected with—

- (1.) The home-care of the patient.
- (2.) The application of treatment at a distance, and probably under unfavourable circumstances.
- (3.) The distance which patients may have to traverse in order to attend at an asylum, and probably the indisposition to attend there at all.
- (4.) The efficiency of means to deal with the examination and treatment of patients.

The first of these objections is a serious enough one. In many cases the surroundings of the patient have fostered, even excited, the attack of insanity. And although the anxiety of the relatives to benefit the patient may be evident, their efforts are so often ill-judged and ignorant as to be but harmful. I take it that the difficulties under this heading of home-care are so obvious as to scarcely need indication—notwithstanding which, to some extent, remedial measures may be adopted.

The second point of objection is almost one with the first. In no few cases the patient is found to be left nearly or absolutely to his or her own resources, not only unassisted, but hampered by children and domestic cares of various kinds. Under these circumstances the administration of drugs becomes a serious difficulty, if they possess any toxic nature; also various other dangers present themselves, such as free access to lethal weapons and suggestive methods of injury to self or others. Without assistance, too, it becomes nearly certain that matters of dietary, under circumstances of mental depression, for instance, will not be attended to. In such cases the responsibility of the asylum physician is considerable, and he needs much experience to decide upon the propriety of accepting them as out-patients. And yet, if he refuse them, a large proportion of his applicants will be disqualified, and the scheme of asylum extra-mural treatment receives a serious check.

The third objection is an important one also. Where the county asylum is the centre for out-patient treatment, the distance for the patient to traverse and the difficulty of transit may be in some cases serious impediments—even excluding expense.

Moreover, patients are likely to shrink from the precincts of an institution which they regard from the nature of their condition with especial dread, and to harbour a feeling that upon some visit they may be swallowed up within its gates. I have heard the relatives confess to the unwillingness the patient displays towards attending at the asylum.

With regard to the efficiency of means to deal with the examination and treatment of patients, it is not sufficient that out-patients should be received into the ordinary waiting-room of an asylum, to be herded amongst in-patients and their friends, and to receive, perhaps, hurried notice amidst the press of other work. It is obvious that they should not be brought into any contact with such persons; and also that the asylum physician should be able to give sufficiently lengthy and undivided attention to his case. Where, too, there is any number of cases, there are sure to be no few who will need careful and varied forms of physical examination, the whole of which could not be well-performed without assistance from an adequate staff. In fact, it is evident that there must be no scant time allowed for the examination of this class of patients, when we consider the time occupied in the examination of a new admission into an asylum, where we have not at the moment to enter into the difficulties of treatment, which are, of course, infinitely multiplied in the case of persons for the while out of our observation. Leaving this subject, we must allude briefly to the class of cases fit for treatment. At Wakefield we have always considered it preferable to have the patient recommended by a medical man, so as to avoid clashing in any way with the interests of the outside practitioners. Apart from this, all cases not having some distinct mental symptoms existent or threatening are excluded.

When recommended for treatment, the propriety of accepting the responsibility of the case has to be considered. And although there is no statutory power vested in the physician to commit patients to an asylum, yet, in most cases, his advice will be adopted by the relatives, or even voluntarily by the patient, so that he practically becomes the disposer of the freedom of the latter. I need not allude to the kind of cases fit to be accepted as out-patients, since

their choice will be the result of experience. It is certain, however, that unless additional means of treating those who do attend are taken, the number which will be available will prove small, and probably consist of the more unsuitable and chronic kind.

As to improvements in the working of the system, certain suggestions may be made. Firstly, I think that where feasible it is far preferable to hold the clinics away from the asylum. Where the latter is closely situated to some large town the public infirmary or dispensary form most suitable places, if arrangements can be made with their committees for the use on certain days of their out-patient rooms. In the case of the larger institutions obvious benefit would result from the opportunity of consulting with their medical staff, where advice as to conditions other than mental may be welcome. And, on the other hand, advantages might accrue to the students in the way of studying mental diseases.

If there are difficulties in the arrangement of the above suggestion an alternative would be to hold the clinic in town chambers.

Improvements in the home treatment of patients must be directed towards—

- (a.) Relief of temporary pecuniary straits.
- (b.) Proper nursing supervision.
- (c.) Isolation.

The first, for the most part, will only be needed when the bread-winner of the household is the patient and needs withdrawal from work. I cannot here offer suggestions as to through what source such relief is to come, although it would seem that the union authorities might well consider the propriety of making some allowance which might equal or be less than—as occasion demanded—the sum charged by the asylum authorities for maintenance.

As regards the provision of nursing, without attempting to maintain a severely acute case out of the asylum, there is yet no small number of patients who could be safely trusted to tide over an attack of insanity at home, provided they were under moderate supervision and management. In some few, no doubt, almost constant companionship would be needful; in the majority occasional visitation would be enough. This could only be done by having a nurse or attendant staff on the system of district nursing, and would be only practicable in the case of the large towns.

Or there is the alternative (3) of temporary isolation. It

appears to me a desideratum that an institution after the kind of a convalescent home should exist, into which the poorer class might be admitted, as voluntary patients, in the earlier stages of mental disease, by recommendation of the asylum physician. This would by no means pose as an asylum, and the complete freedom of the patient would relieve him from all fear of compulsory retirement from the world. The building and nursing accommodation would only need to be of a simple kind. It would be situated preferably in the locality in which the out-patient clinique was held, and would be visited by the physician on his ordinary days of attendance. There would probably be no need for constant medical supervision, but if the size or requirements of the place demanded such, charge might well be taken by a clinical assistant from one of the county asylums, where such an officer exists.

I am aware that the foregoing suggestions would present many difficulties in their carrying out, nor can I indicate the method for putting them into effect, even supposing them, that is, to be sufficiently feasible to demand further consideration. But in order to push the scheme to its limit of practical trial, I have felt bound to mention needful extensions of the system as at present pursued.

In connection with the development of the out-patient scheme, I am enabled, through the kind offices of Dr. Savage and Dr. Goodall, to obtain the opinions of some distinguished alienists in Germany upon the mental "Irrenkliniks" there.

Their views will go far in helping us to estimate the value of the scheme, actual or prospective.

Professor Eulenburg, of Berlin, writes to the following effect:—

"Out-patients with mental symptoms are treated in the department for diseases of the nervous system, and not in a special clinic. The class of cases attending consists of the milder forms of functional psychoses, *i.e.*, mania and melancholia, as well as organic diseases, especially in their early stages; also cases of hysteria and alcoholism.

"Often patients are brought to the out-patients' room to be certified, or for advice as to their responsibility under certain mental conditions.

"Most of the patients are drawn from the lower classes, but some are from the middle class, *e.g.*, minor officials, artists, teachers, etc.

“There is no difficulty in the certifying of a patient, any qualified physician, together with a magistrate, being sufficient authority in the case of paupers, and the latter person’s interference being waived in urgent cases until after the incarceration of the patient. Another certificate by a physician specially-authorized (by Government probably) is needed in the case of patients sent to a private asylum (again to be waived in an urgent case).

“The treatment is conducted only on general principles, dietary, tonics, mild sedatives, electricity, and massage being employed.”

Professor Eulenberg emphasizes that treatment inside an institution is *much preferable*, and that an out-patient system can only be looked upon as supplementary.

Professor Knecht (who translated Dr. Savage’s book on “Insanity” into German) has a more favourable opinion of the use of these clinics, asserting that they are undoubtedly valuable in giving advice to the lower classes. The same persons, as regards social status, attend, as before mentioned. Medicines are supplied on reduced terms. Treatment as before.

Dr. Levinstein Schlagel, of Berlin (who edited the last edition of Griesinger’s book), gives the following information:—“The department for diseases of the nervous system, in connection with the University, receives patients having transitional forms of disease from neuroses to psychoses, and with pure psychoses as well. Both are received for treatment, but members of the latter class, if in a state dangerous to themselves or others, are sent directly to an asylum.” Dr. Schlagel does not express himself enthusiastically about the treatment of the pure psychoses as out-patients. In his opinion they take up much time and soon relapse. The clinics are largely attended, and by both the poor and better class. He also mentions a system of “patient’s funds,” which enables the treatment to be carried on outside the clinics.

All these authorities concur in the opinion that these clinics are of proven value for the purpose of teaching to the students.

A Chronicle of Infant Development and Characteristics. By
Sir W^R. G. SIMPSON, Bart.

(Continued from p. 389.)

Child Odo, born 8th February, 1885.

July 15th.—The following differences between James and Odo were noted in the first few months of the latter's existence:—James's eyes from the first were noticeably wide open, and seemed to look. They seemed much larger than Odo's. Now they are soft and languid. James was somewhat delicate during infancy, but grew out of it; stomach easily deranged. Softness of eyes in some measure due to very long lashes; but I find comparative brightness or languor of eyes a sure guide to his state of health. Odo's eyes have steadily grown in apparent size, because (the converse from James) the older he has grown the wider he has opened them. They are now wide, round, and bright (blue). James has very large pupils; Odo not. Odo apparently healthy, can partially raise himself up; has cut thirteenth tooth; has a placid temperament; does not cry much, *i.e.*, will lie awake for long periods, which James never would do; sleeps all night for most part, which James seldom did. In short, thus early the one shows an excitable, the other a placid temper. Odo objects to being taken by a stranger, although he very soon gets over his misgivings. At this age James showed no distrust of strangers. Odo has a distinct manner to the three persons he knows best—nurse, mother, and father. He coos and smiles to mother when she comes to take him. He only smiles to father. Smiles more but talks less than James did at same age. By talking I mean saying "coo," "ug-gug," and the expression called "crowing." Cries at once on being scolded. James did not understand a scold at same age. Odo always tries to seize father's moustache when taken by him. In the case of women it is the hair he goes for in preference to anything. Odo makes use of smiles at five months old, and used them unconsciously at four months, which James (see notes on him) did not do till his seventh month. On the other hand, Odo uses his hands only to grasp things, or at most to put them to his mouth. At the same age James always put them to his mouth and could play with them, that is, pull them about.)

September 6th.—He has become eagerly interested in, and

has made great and sudden progress in grasping things and conveying them to his mouth; he wishes not only as before to handle what is put in his hands, but stretches them out for unoffered objects. In a jerky way he can shake a rattle, and has begun to recognize the rattling as the result of the shaking. The power of producing this sound at will seems to afford him intense satisfaction. The wish to get a hold of things and examine them is his first clear symptom of reaching out voluntarily for knowledge. Until now he has accepted amusement passively. He is now reaching out after knowledge. This active pursuit of things shows itself to be still a very feebly developed desire by the fact that he will not cry, however abruptly anything is removed from him. Of course this does not apply to food, the unwished-for removal of which has caused screams since his first day. The sense of *meum* in food, and desire for it, is as fully developed in the new-born infant as in man. Besides food, in the matter of comfort, a child's senses are fully developed from the first. Pain, I suspect, is, however, long in being localised. His brother, now three years old, barked his shin the other day. I took down his stocking that he might see the wound. He failed to find it, searching his knee (the usual place for hurting himself), and finally accepting an old bruise thereon as the wound, which nevertheless must still have been smarting.

As showing the same feebleness of active intelligence in matters of sentiment or knowledge, Odo—besides not minding the removal of objects he is grasping—does not yet show temper when taken from one person to another, even though much amused, and although the person he is taken from is a favourite, provided always the person taking him is not a stranger. He will cry at being taken by an absolute stranger under any circumstances.

He distinguishes people he knows, and has, I believe, done so from a very early age. There are slight distinctions of manner to his different familiar friends not easily described. To his father he holds out his hands more demonstratively than to others, probably because he sees him less, and because he is made more of by him and more played with in the few minutes he has him.

A fortnight ago he could not recognize anyone attracting his attention from outside, he being at the nursery window (second floor). He stared vacantly without a smile. Now he does, but still imperfectly. There is no sign of recogni-

tion if the person merely stands below the window. He or she must call to him. It is evidently more by ear than eye that he knows them at this distance. On being called to he looks about searching the direction of the sound. But when he has once caught sight of the person, he sees him and smiles, and keeps his eye upon him.

James, October, 1885.—His understanding of conversations not directed to him is very considerable. Within the last month he has not only voluntarily told to third parties what had been said to him when no third party was present, but also things grown-up people had said to each other in his presence (both new developments). A curious instance of understanding conversation, and of the conservatism of childish minds, is: A girl of ten or eleven had been in the habit of repeating rhymes to him. Amongst these she taught him that "Humpty Dumpty went to town upon a little pony." Hearing this I explained that Yankee Doodle was the gentleman's real name, and in his presence had an argument with the girl about her version, calling it wrong. This she would not admit. Now when he wishes "Yankee Doodle" he asks for "Humpty Dumpty," and gets angry if either of us gives him the correct version.

Odo, 28th October, 1885.—Has been ill with a bad cold for some weeks. Recovering, he has suddenly developed in many ways. This seems often to follow illness with children. He has within one week learnt (1) to clap his hands, (2) to interest himself in toys (he wishes to handle all his brother's toys, and does not take them exclusively to mouth as before, but examines them), (3) has developed more pronounced tastes for people, in that he will now cry if not taken by the person he for the moment prefers, and (4) most noticeable of all is the first attempt at speech. He has no articulate sounds which can be positively regarded as words unless we except "mum, mum," "dad, dad." "Mum, mum" does not mean mother. In my opinion these are not more than mere animal cries of the same class as "ug-gug," "coo," etc., referred to above. He has not yet identified any word, but appreciates that communication is made by sounds, and has begun to try to make himself understood by what may be called nonsense words. He varies the sound, because to his ear we vary, and is inclined to believe that so expressing himself, taking the sounds at random, the meaning he intends will be understood. Grown-up people who constantly say "You know what I mean," when they have not expressed

but only felt a thing, are for the moment in this stage of Odo's in regard to language. In other words, I feel sure he thinks that so long as he talks, no matter what he says, he will be understood.

James, 1st November, 1885.—He has no conception of death. "If Tim eat num meat Tim die and go to Holy Father." "Tim want to die." Asked why. "Tim like to go high high up above chimney in the sky." He answered in the same tone when asked why he wanted to go by train to London. There was no distaste for "num num meat" (kidneys); wanted them all the same. It is noticeable that he is not logical. Believed meat would kill him, and wanted to go to skies; but no idea of insisting on getting the meat *in order* to go.

Playing hide-and-seek with child of ten; has no idea of inventing hiding-place; always hides where she last hid. Accepts the hiding turn about, but has no idea of searching for her in new places. Looks at all the old ones, and asks elders "Where to?"

Same child often plays the game with him and enjoys it. She amuses him when he hides, by *pretending* not to know where he is; but when her turn comes she amuses herself; she really hides, and triumphs if he fails to find her. Though not an infant, she is nearer one than a grown-up person, which we often forget about a clever child, who, like her, is in advance of us in many points—arithmetic, geography, etc. This child of ten got three birthday cards clumsily addressed by me, two in envelopes with the monogram torn off. She saw that the monogram was torn off, but did not detect the fraud. One better disguised as to writing and make-up she detected, because I enclosed it in the paper I write articles on.

James, 18th April, 1886.—A period mainly characterized by *inquisitiveness*, *i.e.*, having learned to use his own senses he is now acquiring skill in profiting by the experience of others. At dawn of activity the predominant idea is *touch*. He is very far advanced in observing things. Sees and observes a new thing almost more quickly than seniors, because always looking for them, *e.g.*, at once noticed a new cigar cutter on my watch chain which was lying on my dressing-table, although it was partly hidden among a bunch of trinkets with which he is familiar. The new one he first examined very minutely, then after some time asked "What's it for?" I had to submit to a pertinacious cross-

examination as to its use. A fire escape which he saw standing unobtrusively he was equally exhaustive in questions about, but he became inattentive when I pointed out that his playing with matches might entail its use.

He likes to be told stories or have things explained, but is very imperfect in telling or explaining. Sometimes he drops a hint as to what he has been doing, but if asked directly cannot or will not tell the simplest matter that has happened a few hours ago. Seems to forget unless it is part of subject at present before him. Although he cannot *tell* a story he can repeat a rhymed story he has learnt by heart. The other day I happened to say something was a change. He repeated eight lines of a hymn, the last two being "changeless sky," evidently seeing some analogy.

Although evidently incapable of recalling what he has done even a few hours before, his memory is most retentive when circumstances repeat themselves, *e.g.*, on Sundays (no other night) I put him to bed. I have to go through the same routine every Sunday as I happened to go through on the first, *viz.*, to lay him down, to hold his hand, hear his prayers, go over and kiss the baby, and then come back and hold his hand till he is asleep. On the second Sunday night when he said "Go and kiss baby" after his prayers I did not go, not understanding. He sat up and insisted. It was only then I remembered that I had done so on the previous Sunday. I could give many other striking examples of ritualistic tendency in a child's mind.

The conscious wish for mischief is developing. He throws things over the stairs in a general way because it annoys, but what he longs most to do is to turn on the gas, because having done so and filled my room, I showed real alarm. When he did it a second time I had to be really cross with him. He looks at the gas now with unutterable longing, and evidently measures this great pleasure against the great pain of what he seldom sees—my solemn displeasure. This he dreads and hates. A child seems to me to understand character in a very high degree. When I am cross and speak really more roughly than when wishing to correct him he is not disturbed. He says "Father got a head-a" (headache), and goes away unconcerned.

As an illustration of the development of minuteness of observation, he at once noticed the difference between a pack of political caricature cards which I gave him to build castles with and an ordinary pack.

He cannot count beyond three. The rest is twelve, fourteen—anything.

Odo, 18th April, 1886.—Having been seriously ill from teeth and upsetting of stomach has gone back in every way. He is emaciated and lighter than at last notice. He is slightly livelier within a week, but he does not try to speak; in short, he seems to have relapsed every way. Intellectually he has gone back to nine months or further. The last notice about him is of his advance in every way.

Odo, April, 1887.—After illness developed rapidly, making up to mental stage at which he was before it about August, 1886. Did not recover in health till July. In bodily matters, *e.g.*, walking (in which no one can give assistance), he was actually retarded, not walking till September, *i.e.*, eighteen months of age.

I have made no notes about mental development because it was less emphasized than his brother's, the reason, I think, being that learning from a child, his brother principally, the process of learning was less noticeable to seniors. It is noticeable that he does not learn except from him, that he pays attention to copying him, and does not try to learn when I wish to teach him. The consequence is that he has been somewhat earlier on the whole in acquiring the points mentioned under "James" than "James" was. In other words he is not quaint. (Is this a reason why an only child is often original, and almost always has points in character when grown up? Is this why an only child when grown up is often said to have been spoilt, and yet that many of them are remarkable men?) Although bold, James, as observed, does not often hurt himself. Odo, less impulsive, learning by copying or by trying to copy his brother, and therefore with less reflection, is prone to bruises.

Odo is not so excitable as James, who, I believe, is exceptionally so. He easily goes into a pet at being frustrated, but cries merely because frustrated, cries sooner and stops sooner. His liking for me (perhaps this is because I do not spoil him, *i.e.*, make such a favourite of him as I did of James) is more intellectual, less lover-like. The other day, after, or rather during, a dispute, I persuaded him to make it up by bribes and threats of not taking him downstairs. Bribes always failed with James. His affections were wounded and could not be bribed.

In referring to notes on James, I find that Odo is further advanced in language than James was at same age. At

this date Odo uses sentences of three or even four words (see James at same age). This (greatest use of words) is due I think to two causes. Odo learns from his brother more than from seniors, *e.g.*, never will say "dada," although encouraged to do so by parents, but "fa-fa," an imitation of "father," which James uses perfectly now. At the same stage James said "dada." James says sometimes "Nenna" (his own word), sometimes "Nursey;" Odo says "Nennu." Yet he says "ma-ma," not "mother," like James, and occasionally "mum-mum."

The most marked points of difference between them is in eating. James is omnivorous. They both sit beside me at breakfast, yet Odo does not imitate James in his desire to have a share in anything I am eating. He prefers to play, and asks for nothing, if allowed to play with the salt.

James, April, 1887.—Within three weeks he has made two new departures. 1st. A desire of fiction, that is not to tell the truth. After a walk he plots with me to tell his mother he has been to some place he has not been at, and circumstantially. To-day he told me circumstantially that his tricycle was in the drawing-room. Yesterday he described how the dog had eaten my nail scissors. He is not lying. He has discovered story-telling, and takes a keen pleasure in it. Lying he has not taken to much (*i.e.*, telling an untruth to save himself), though I am told children usually discover it early. 2nd. He enters into the personalities of others and therefore into sympathy with them, and imagines their conversation. This is a very interesting development. Some of the most highly developed, or at least the greatest men, never have even the rudiments of it; they never can see as others see, and cannot but call them rogues. James supplied two girls in a picture with conversation for half-an-hour. I gathered that he was quite abstracted from himself. At last I asked, "Are you speaking to the girls in the picture?" He answered decidedly, "No! don't you see! It's me as speaking what the girls think."

James, August, 1887 (nearly five).—Cannot be made to feel for others completely; will sympathize with a person who cries, or a beaten dog, but thinks it fun to put a pin into me or to dismember flies. However, I being unwell (rheumatism), he began to exercise a certain forbearance, and to avoid hurting me without that repulsion which, as a child, he exhibited when I was bad with lumbago. It took a long time, as my sufferings were not demonstratively before him.

Can count in the sense of naming figures up to twenty or so, but only up to six does he apply the symbols to things and use them. Up to six knows the combinations two and two, two and three, etc. Is learning to read voluntarily. Learns by printing words. The other day he recognized his own name "James" on a cab.

Odo, October, 1887.—Compared with James at same age I have only again to repeat that he is more advanced, but that there is little to note, the process of learning not being visible, *i.e.*, he picks up things from his brother without effort, unconsciously. His acts and deeds are all acquired by imitation, not by thinking them out. His vocabulary is fuller than James' was at his age, because he learns from him. In the same way he climbs, jumps, etc., better than his brother at the same age, although he does not promise to be nearly so athletic a man. As the gap between a child and a senior is too great in everything for a child to learn by direct complete copying, so where James does a thing Odo recognizes as utterly beyond him he gives no attention to it, *e.g.*, riding a tricycle, writing words, climbing *over* a fence.

*An Improved Reaction-Time Instrument.** By Dr. BEVAN LEWIS, Medical Superintendent of the West Riding Asylum, Wakefield.

I thought it might prove of some interest to demonstrate at the psychological section the instrument I have hitherto used at the West Riding Asylum for the purpose of registering the reaction time to a sight and sound signal. The instrument in its original form, as made by the Cambridge Scientific Instrument Company, may be familiar to you, but lately I have so far modified it and extended its utility that I think it will be well to indicate the changes introduced in detail. The original, with minor alterations, has been described so fully in Dr. Hack Tuke's new "Dictionary of Psychological Medicine" that I shall only briefly refer here to the general scheme of its construction, referring those who seek more minute particulars to this article.

* Paper read at the Psychology Section of the Annual Meeting of the B.M.A., held at Nottingham, July, 1892.

You observe, then, gentlemen, we have here a square standard of pitch pine supported on a tripod, with levelling screws adapted. A rectangular piece of teak or mahogany is screwed into the standard about three feet from the floor, at a convenient height for reading off upon it the registry of the falling rods.

At its farther end is a horizontal table, upon which rests the hand of the party operated upon, whilst along the centre of the cross-piece you observe a horseshoe or stirrup secured by an electro magnet, which, released on interrupting the current, is drawn back by a powerful spiral spring, and so clamps the registry rod in falling.

At the summit of the vertical standard you see an arrangement whereby the rod was formerly suspended on a steel bar, which being released by turning a screw, swung round and started the rod.

The rod itself, made of box or lance-wood, was accurately graduated along its edge into hundredths of a second—the complete fall of the rod occupying $\frac{30}{100}$ ths, or $\frac{3}{10}$ ths, of a second. After falling through a short distance, a brass plate which rides astride the top of the rod encounters a diaphragm, and so gives a sound signal by its impact. To this diaphragm, however, there is adapted an arrangement for the make and break of an electric current, so that an electric bell conveniently gives the sound signal.

For a sight signal you observe the rod has a vertical slit which corresponds, when the rod hangs suspended in a state of rest, to a small window in the ledge projecting from the standard. After the usual distance the further fall of the rod suddenly shuts off the light seen through the slit, at the same moment at which the sound signal would have been given had we not removed the brass weight above.

This, gentlemen, is the instrument as first constructed, and its application is described in a few words:—For a *sound signal* the subject sits with his right hand resting on the horizontal table, his forefinger upon the interrupting button of the clamp-magnet. An attendant standing behind released the rod, which, falling a short distance, gave the sound signal, whereupon the finger is instantly depressed, the stirrup released, and the rod firmly clamped. The observer, sitting in front, reads off the figure at which the clamp secures the rod.

For a *sight signal* the brass weight giving the sound signal

is removed, and the subject, sitting as before, keeps his eye fixed at the light seen through the slit of the rod. The instant this disappears he again clamps the rod in like manner.

And now as to the novel features introduced. The release of the rod frequently caused a very perceptible click, which, with a *strained attention*, was most likely to be taken for the subsequent sound signal. Observe the fallacy. The initial slow fall of the rod to the level at which the sound signal was given was computed to occupy 0.1 second, or $\frac{1}{10}$ ths; it was therefore of considerable moment that the release should be a perfectly *silent* one. This was effected by introducing an electro-magnet, to which the graduated rod swung, attached by a short cylinder of soft iron.

Then arose a further desideratum. The fall of the rod occupied but $\frac{3}{10}$ ths of a second, whereas several of my subjects required a far longer interval for their reaction. You see how this end has been secured. Four electro-magnets suspend as many rods by means of soft iron keepers attached to each of the latter. The rods are exactly alike in graduation.

Below, on the footboard, you observe a series of four keys which are introduced into the circuit of the respective electro-magnets above. When the first rod falls it strikes the first key, breaks the circuit of the second electro-magnet, and so starts the second rod; it, in its turn, strikes the second key, breaks the circuit of the third electro-magnet, and starts the third rod, and so on through any number it may be desired to utilize.

I find four rods all that is requisite for practical purposes. For securing these rods a much more powerful spiral spring was requisite, and a lengthened clamp of four stirrup divisions.

The fall of the rods in succession on the disconnecting keys introduced, as you may suppose, a most undesirable clatter; and here you see the method adopted to minimize this disturbing element—an ingenious contrivance, which I owe exclusively to my friend Dr. Bedford Pierce. Each rod, you will note, has a short horizontal arm at its lower end, to which is suspended a soft light weight, which, with the gentlest touch upon the key, breaks contact and releases the next rod, whilst each rod in turn falls, not on the key, but upon a pad stuffed with sand, which notably deadens the thud

and diminishes the rebound of the rod. Dr. Bedford Pierce has thus provided an almost silent fall for the rods, whilst the arrangement above secures an absolutely silent release.

You will also observe the first rod is so suspended as to fall through a distance of 4.875 cm. ere the signals for sound or sight are given. The object of this is that the rod should acquire such a degree of velocity as to afford convenient divisions for time registry; otherwise, when starting from a position of rest the initial movement is so slow that divisions of hundredths of a second would require too fine a graduation for practical purposes. This initial fall of the three last rods is accounted for exactly by the distance of the suspended pads below the rod itself—in other words, the pad touches the key and breaks contact before the rod has completed its fall, so that by the time the rod has reached the baseboard, the second rod has just fallen through the initial space alluded to and has acquired the desired momentum.

This feature adds immensely to the value of the contrivance suggested by Dr. Pierce, as it eliminates the period of fall which would be registered with difficulty if not uncertainty.

One further change I have introduced. The brass weight astride the first rod has been dispensed with for the sound signal, and in lieu thereof a fixed weight is placed upon the diaphragm, just sufficient to make circuit with a single-stroke electric bell. The weight is kept up by a small cork wedge, which is secured to the rod by a thread. When the rod has fallen through the initial distance it pulls out the wedge, releases the weight, and a signal is instantly given. I find this a great improvement upon the older method adopted.

Those who are familiar with psychometric methods will recognize the importance of having both a single-stroke and an ordinary continuous electric bell in circuit as a sound signal.

The Treatment of Myxædema and Cretinism, being a Review of the Treatment of these Diseases with the Thyroid Gland, with a Table of 100 Published Cases. By CECIL F. BEADLES, M.R.C.S., L.R.C.P., Assistant Medical Officer, Colney Hatch Asylum.

(Concluded from p. 355.)

A Criticism of Published Cases.

(See Tables 1a and 1b.)

For the benefit of those who have not followed the recent discussions I have compiled tables of the cases of myxædema treated by thyroid injection and feeding that have thus far been published in this country. These, I trust, will be found useful and easy of reference. The main points of each case are arranged under a few convenient headings, viz., the sex and age of the patient, the duration of the disease, the length of time the treatment had been carried out at the time of reporting, the dosage and method of administration employed, the results obtained, and, where such existed, any ill effects that were seen to follow or occur during the course of the treatment. In all there are details of 100 cases shown. A glance at this summary will bring out certain points of interest and importance.

1. The female sex largely predominates, there being only eight male cases, but then it is to be remembered that the disease is far more common in women than in men; the Clinical Society's Report gives the proportion as one to six, but this is undoubtedly too high. The table shows, however, that we may look for equally favourable results in both sexes.

2. There is no limitation of age; the thyroid gland appears to exert the same remarkable influence alike on the young, middle-aged, and those past the prime of life. With regard to the very young I shall have occasion to speak shortly when dealing with the subject of cretinism, and I shall return to the subject of the administration in elderly persons.

3. The length of time during which the disease had existed is seen to make little or no difference. For instance,

in Dr. Corkhill's case* the patient is said to have only exhibited signs of the disease five months, whereas in one of the cases reported by Dr. Dunlop† it was of twenty years' duration; between these extremes all stages exist. This is contrary to what might have been expected, and, certainly, at first sight, one would scarcely have hoped to obtain the same marked results where the disease has been a long time in existence. It is, however, in the extremely marked cases that the change is most pronounced, and, on the other hand, the cases in the very earliest stage of the disease seem less noticeably influenced even after a prolonged course of treatment. This point was brought out in the cases published by Dr. G. E. Hale,‡ who wrote me last October: "In three, considerable improvement occurred after periods of seven or eight weeks, all three being able after the course to do a good day's work. In the fourth case, an early case in a young woman, little or no improvement has occurred, although the treatment has been perseveringly followed out for more than six months."

The same applies to two early cases on whom the treatment has been tried in Colney Hatch. They improved slightly after a time, but there was not the rapid change so uniformly noted in advanced cases as being at once observable.

4. The period during which the treatment has been carried out at the time of publication has varied considerably in different cases, from a few weeks to many months, but in all there is the same result recorded. Dr. Murray's is the longest, it is now over two full years, he having begun treatment in April, 1891.§ A most singular point is the rapidity with which a change in the patient's condition is first recognizable, and even a cure may be said to have taken place. The treatment owes its origin to the change that was recorded as occurring within a few hours of the transplantation of the thyroid. The patient under my care seemed brighter within twenty-four hours of the first injection. In Dr. Napier's patient|| a change for the better was first noticed after the fourth injection, and the patient

* "Brit. Med. Journ.," Jan. 7, 1893.

† "Edin. Med. Journ.," May, 1893, p. 1012.

‡ "Brit. Med. Journ.," Dec. 31, 1892.

§ "Lancet," May 13, 1893, p. 1131.

|| "Notes of a Case of Myxædema Treated by means of Subcutaneous Injection of an Extract of Sheep's Thyroid," with photographs. "Glasgow Medical Journal," Sept., 1892.

was discharged in two months, after sixteen injections of one gramme of a watery extract of the thyroid, with disappearance of all the characteristic signs of the disease. Again, in M. Bouchard's two patients the improvement is said to have been "extraordinarily rapid."* Dr. Mackenzie's first patient "had very considerably altered for the better"† at the end of a fortnight's feeding with thyroid glands, and Mr. Shapland's case expressed herself as "feeling better than she had done for years" after taking half an underdone gland every morning for a week.‡ Two days after the first injection of mxxx. of fluid extract a patient whose photograph and case is published by Dr. Henry, of Lewisham,§ showed distinct signs of improvement. The changes brought about in one month to eight weeks are always well marked. Again, with two of the more recently exhibited cases, viz., Drs. Wood's and Johnson's, "distinct improvement was discernible on the third day."|| The length of time during which it may be necessary to continue the treatment is a point as yet unknown. The probabilities, however, are that it may be necessary to continually give a small dose at more or less prolonged intervals in order to maintain the improved state which has been brought about.

5. As to dosage there has been no uniformity, and almost every observer has given according as he thought best. This want of uniformity is, of course, due to the fact that we are still (so to speak) in the experimental stage of the drug, and it has not been found possible as yet to fix the correct dose—that is to say, an amount of the extract which is capable of producing a curative effect without at the same time giving rise to toxic symptoms. The quantity and frequency of administration, however, are points that will probably be shortly decided. At the same time, they will probably depend on the stage of the disease and the age of the individual; moreover, they may possibly vary with individual cases and the idiosyncrasies of the patient. With these varying factors special care will be needed in its employment.

Another point that cannot be decided as yet is the best mode of administering the thyroid gland, or, rather, its

* "Lancet," Oct. 1, 1892.

† "Lancet," Jan. 21, 1893.

‡ "Brit. Med. Journ.," April 8, 1893.

§ *Idem.*

|| "Brit. Med. Journ.," May 6, 1893, pp. 954 and 955.

active principles. As is shown in the list of published cases, various minor modifications of the original method have been adopted. These, which already have been referred to, have each been lauded as the best by those who first introduced them, and it is only from the experience of others and their more extensive trial that we can arrive at a correct estimation of their proper value. There is no doubt that some of these methods have advantages over others, and that with some there are distinct objections to their use as being more liable to be followed by ill-effects. At the same time, it may be that what is preferable in one case may not be so in another. To this subject I shall return.

6. But what is clear from all the cases that are here collected together is that this special mode of treatment is invariably followed by an improvement in the patient's bodily condition, by a rapid change in the appearance of the patient, and within a remarkably short space of time (measured by a few weeks) the patient has so far recovered from the disease that it is impossible in many cases to recognize the case as one of myxædema. The general puffy, œdematous-like swelling disappears, and the coarse, dry skin is replaced by one that is smooth, soft and moist, and the blunted, thickened features so characteristic of myxædema are rapidly lost; the hands become smaller; within a comparatively short space of time young hair commences to grow on the scalp and eyebrows, so that in place of the thin, scanty crisp hair the head is soon covered by a thick healthy crop of hair, which causes a most noticeable alteration in the appearance of the patient. The body-weight rapidly diminishes, often as much as a stone a month, until it has reached a certain point, when it again tends to slightly rise. This loss of weight is probably due to the absorption or conversion of the mucin in the tissues, and the increase which afterwards occurs may be due to a deposit of healthy fat in its place. The special senses all become more acute, eyesight and hearing improve, and general tactile sensation becomes more natural; the bodily functions assume their normal action, the bowels and catamenia become regular, and there is often an increase of urine passed; the voice loses its peculiar slow, thick, monotonous form, and assumes its original type. The patient becomes warmer and feels more comfortable, and there is a rise of the body temperature, which nearly or

quite reaches the normal point. Both mind and body become more active. The patient becomes brighter and more cheerful, and is able to get about and attend to his duties, in which he now takes an interest. This, in short, is only another way of saying that there is a complete transformation, and that the patient has ceased to be a patient, and appears a new individual. Such, briefly, are the results that have been attained.

7. But this startling result has not always been obtained without the occurrence of some grave and unpleasant symptoms. These have doubtless been due in the majority of the cases to an excessive dose of the preparation, manifesting a toxic action, and are capable of, and to a great extent have been overcome by more careful regulation of the dose.

As a rule, when occurring they have been of a mild nature, such as general weakness, faintness, nausea, vomiting, slight giddiness, headache, and aching pains in the neck and shoulders, which have rapidly passed off on reducing the dose, but occasionally the symptoms have assumed a more serious nature, and, at least in four instances, death resulted. This happened in the early days, of the thyroid treatment, and such a result it is to be hoped will not again occur. Amongst the more severe forms of symptoms to be guarded against are loss of consciousness, tonic spasms, collapse, urgent dyspnoea, and cardiac failure. These have been prevented by greater care in regulating the amount and allowing it to be administered more slowly. With a more accurate knowledge of the power and action of the new remedy they are lessened or altogether avoided. The liability to irritation, erysipelas, abscess and induration sometimes following subcutaneous injections has been lessened by greater antiseptic care, and by the more recent administration of the extract by the mouth has been entirely prevented.

As the discomforts and risks of the treatment have been so fully gone into by other writers, notably by Dr. Lundie* and Prof. Grainger Stewart,† I will abstain from further entering on the subject. The latter observer gives some useful advice for the treatment of urgent symptoms that may arise.

But still, I may remark, it is clear that in the active

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* "Edin. Med. Journ.," May, 1893.

† "The Practitioner," July, 1893.

principle contained in the thyroid gland we have an exceedingly powerful chemical body, and too much care cannot be exercised in its proper use. In persons suffering from very advanced disease, and in elderly subjects, great caution is necessary, and with returning strength and vigour moderation in all forms of exercise should be insisted upon.*

The Treatment, with Special Reference to the "Insanity of Myxœdema."

The actual number of recorded cases of myxœdema in which definite insanity ensued in the course of the disease is comparatively few,† and only one or two have been published by medical officers of our asylums. But if we remember the mental state which patients who are the unfortunate subjects of myxœdema invariably develop as the disease becomes advanced, we can understand how a considerable number of them eventually find their way into lunatic asylums. It is probable that these institutions are the last home of a large percentage of cases, and there are probably few asylums of any size where such patients do not exist, and, owing to the chronicity of the disease, are probably resident for a long period.

Myxœdematous patients invariably become demented. Dr. Savage, in his review of the Clinical Society's Report on myxœdema in Dr. Tuke's recently published admirable "Dictionary of Psychological Medicine," says:—"In a rather large proportion there is more or less imperfection of

* It would seem impossible that the condition described by Dr. James Whitwell ("Brit. Med. Journ.," Feb. 27, 1892), as found by him in the cortical cells of the brain in a case of myxœdema, can be present except in perhaps the rarest instances, even in the most advanced cases of the disease. Otherwise, how is it possible for the cells to recover to the extent which one would judge must occur with the change in the patients brought about by the thyroid treatment? In like manner it is not easy to explain how the vessels of the brain could recover from such advanced endarteritis and periarteritis as was found to be present in a case of myxœdema by Dr. Rubert Boyce and myself ("Journ. Path. Bact.," No. 2, Oct., 1892). It is clear there is much yet to learn of the pathology and cause of the disease. That such a diseased state of the vessels sometimes exists proves that great care should be exercised in the use of the thyroid juice.

† The following may be referred to:—Clouston, "Clinical Lectures on Mental Diseases," 1883, p. 603. Blandford, "Insanity and its Treatment," 1884, p. 86. Savage, "Journ. Ment. Sc.," Jan., 1880, p. 417. J. C. Mackenzie, "Journ. Ment. Sc.," July, 1889. Ernest White, "Lancet," i., 84, 974. Urquhart, "Lancet," i., 84, 1079. Jürgens, "Lancet," i., 90, 484. Cecil F. Beadles, "Journ. Path. and Bact.," No. 2, 1892. John Macpherson, "Edin. Med. Journ.," May, 1892. James Whitwell, "Brit. Med. Journ.," i., 92, 430.

mental processes, the defect being one of retardation or sluggishness." The development of actual insanity with delusions, sometimes with attacks of excitement, is not uncommon. "Delusions and hallucinations occur in nearly half the cases, mainly where the disease is advanced. Insanity as a complication is noted in about the same proportions. It takes the form of acute or chronic mania, dementia, or melancholia, with a marked predominance of suspicion and self-accusation; exalted ideas may occur. Memory is usually impaired from an early period. It is recorded as deficient in forty-six out of seventy-one cases."*

The authors of many of our text-books on insanity make no reference to myxœdema in its relation to brain disease, and the remainder pass it over in a few words. Dr. Clouston, however, refers to three cases that were under his care at the Royal Edinburgh Asylum for the Insane, "who were positively insane," and adds, "all the examples of the disease I have ever seen were more or less affected mentally, if they were not technically insane."†

No work on insanity to which I have referred speaks of any special treatment for these cases; this is undoubtedly due to the only recently thoroughly recognized, and even then considered incurable disease, and is a feature which will probably receive attention in future editions.

I have already spoken of and commented on a case in which thyroid grafting was adopted with a partial amount of success (see *ante*, page 350).

There are now several recorded cases of myxœdema with insanity that have been treated by the subcutaneous injection of the thyroid juice or by feeding.‡ Dr. Ernest Carter, of Whittingham Asylum, was one of the first to report upon the treatment.§ His case was that of a female lunatic aged 43, with myxœdema of over four years' duration, and whose insanity had existed five years. After a three months' course of injections the patient's bodily condition was much improved, but, at the time of writing, complete recovery of her mental power had not taken place. In Dr. Claye

* Tuke's "Dictionary," Vol. ii, p. 828; art., "Myxœdema and Insanity."

† "Clinical Lectures on Mental Diseases," Clouston, 1883, p. 603. In a note in the "Edin. Med. Journ." of May, p. 1057, Dr. Clouston makes mention of eight cases which have been admitted into the asylum.

‡ At Newcastle Dr. Clouston reported two cases of insanity in which improvement was manifest from thyroid feeding; one cured in four months, the other in six.—"Brit. Med. Journ.," Aug. 26th, 1893.

§ "Brit. Med. Journ.," April 16, 1892.

Shaw's case,* however, the patient was discharged from Banstead Asylum, recovered, after a treatment of two months. This also was a female who had showed myxœdematous signs four years, and been the subject of recurrent melancholia for a period of ten years. The case that was under my care at Colney Hatch Asylum, and of which I have elsewhere published the early notes,† had greatly improved in little over a month, if we count from the time the injections were commenced regularly. The change in her mental condition was even more pronounced than that in her bodily, and was one that I never thought it possible to attain.

Dr. Melville Dunlop, of Edinburgh, has published a series of six cases of myxœdema treated by thyroid feeding.‡ One of these (Case II.) was undoubtedly insane at the time. It is a particularly interesting case, and I make no excuse for referring more fully to it.

The case was one of a lady who had shown signs of myxœdema over 12 years, and in whose family there were others affected in the same way, viz., her mother and a twin sister. She had been a complete invalid, and unable to move either her hands or legs for something like eight years. Memory had become defective and she wandered in her talk. A few months before treatment was commenced she became much worse, especially mentally, becoming childish, with hallucinations of sight, smell, and hearing, sleepless, restless, and refused food. At length acute mania supervened, when she was excited and dangerous; and for six weeks had to be under the care of special mental nurses. On October 18th, while in this state, the thyroid feeding was begun. mxx. of thyroid extract were administered thrice weekly. "By the 30th of October the excitement had quite gone, and the patient was resting and sleeping quietly. She had no longer any hallucinations, and was speaking rationally." By November 12th there was some improvement in her bodily condition, and the extract was reduced to twice a week. A month later there was a marked change. In January the extract was given only every alternate week. She continued to improve mentally and bodily, and in the early part of February (a four months' course) many of her friends could scarcely recognize her.

Dr. Hamilton C. Marr, of Woodilee Asylum, also reports a case treated by feeding.§

* "Brit. Med. Journ.," Aug. 27, 1892 (communicated by Dr. Stansfield to the annual meeting of the B.M.A. at Nottingham).

† "Brit. Med. Journ.," Dec. 24, 1892.

‡ "Edin. Med. Journ.," May, 1893.

§ "Glasgow Med. Journ.," Aug., 1893.

This is a woman aged 51, whose mental aberration dated from Christmas, 1887, but whose bodily weakness commenced three years previously. She was incoherent and subject to attacks of excitement and violence, at which times she would make false accusations against her attendants. During the intervals she was melancholic and refused to speak. Her health had become very feeble and she had taken to bed. Treatment was commenced in February, 1893, by giving a quarter of a sheep's thyroid mixed with bread crumbs and sherry. After three weeks this was replaced by a glycerine extract, two ounces of which represented one whole gland; of this one drachm was given thrice daily. "The patient gradually improved under treatment," and now it is said that she can converse quite intelligently and is very cheerful in disposition, giving a helping hand to the nurse. Hearing has improved and the swelling of the body has gone down.

Quite recently I have heard of another case of myxœdema with insanity that has undergone the treatment. It is the case which Dr. J. F. Woods, of Hoxton House Asylum,* showed at the Hunterian Society on April 12th.

A female, 32 years of age, with myxœdema of 15 months' duration, of whom it was said that she "began to improve on the third day." Concerning this patient, Dr. S. Whitaker kindly informed me, on August 3rd, that, before treatment was commenced, she had physically most of the signs of myxœdema and "mentally her speech and mental processes were slow, she often heard voices and saw spirits, she was very obstinate, and used to stand or sit about all day and never employed herself. Her weight was 9st. 6½lbs. at the commencement of treatment on January 20th. The treatment was discontinued on June 8th, when her weight was 8st. 6lbs., she had lost most of the physical signs of myxœdema, and mentally she was bright and talkative and employed herself, but she still occasionally heard voices and saw spirits, though not so much as formerly. Since June 8th there has been no apparent change, and to-day (August 3rd) her weight is 8st. 8lbs."

As regards the special mode of administration employed, Dr. Whitaker says that at first the medicine was given twice a week as hypodermic injections of the thyroid extract, but afterwards, and "with better effect," she took White's powders by the mouth. After the first three months the powder was only given occasionally, and during the latter part of the time, in place of the powder, a "thyroid mixture" in ʒss. doses,† each ʒss. being equal to ¼th of a gland, and that this seemed to agree with her the best.

* "Brit. Med. Journ.," May 6, 1893.

† The extract for hypodermic injection was obtained from Brady and Martin, and the "thyroid mixture" prepared by Mr. Chas. Allen.

It is now proposed to let the patient have a dose about once a month.

Under this heading I may perhaps as well call more pointed attention to the change following upon the treatment that has taken place in the mental condition of those patients who have not been regarded as insane, but who have shown the more or less marked dementia that is characteristic of advanced myxœdema. Thought, like speech and actions, is slow, and memory is impaired or lost, and sometimes there are distinct delusions of a suspicious nature, which yet are not sufficient to have the patient certified as a lunatic.

In all these cases, as I have already said, the patient becomes brighter and the mind more active; memory returns and delusions have frequently been lost. Some of these cases will be found referred to elsewhere in the present paper. Drs. Murray, Mackenzie, Davies, Maude, and others all bear testimony to the unquestionable mental improvement that invariably occurs, and as Dr. Hingston Fox says of his patient, "not only has the physical condition altered, but mentally the change is also great. She feels much lighter, less burdened, as she says, and the depression of spirits has largely passed away."* In a note I received on May 18th Dr. Davies tells me that in one of his cases the mental activity for carrying out arithmetical calculations was greatly increased by the treatment, and in others the hearing has been very markedly improved.

Seeing what has thus been done in this line, it appears to me only right that an attempt should be made in these cases to allow the patient the benefit of a trial of one or other of the methods employed in the treatment, and in our asylums should certainly be carried out as a treatment for the insanity of myxœdema.

Although I do not intend to enter on the pathology of myxœdema in the present paper, one cannot help remarking that we can see, in the results that have recently been obtained, strong evidence in favour of the view that the insanity of these cases is dependent primarily, if not entirely, on the disease or atrophy of the thyroid gland and not on a primary change in the brain.†

* "Trans. Hunterian Soc.," 1892-3.

† I would suggest that in those few cases where insanity antecedes the appearances of myxœdema, the presence of the two diseases is a mere coincidence.

*The Thyroid Gland in the Treatment of Cretinism.**(See Table II.)*

Just a word or two on the subject of congenital myxœdema, or sporadic cretinism, as it is more commonly called in this country. Fortunately such cases are of less frequency than myxœdema in the adult. Of the number in this country I have no idea, but there are probably some in all our imbecile asylums. I have seen two quite recently at Leavesden. They were both males, and showed the disease in its characteristic form. Children born in that condition have been thought hopelessly imbecile, and quite incurable. They have lived a wretched, automatic existence for a variable length of time, rarely reaching beyond 30 years of age, as a rule being ultimately carried off in the winter months. No treatment beyond attempting to keep them warm by clothing and surroundings has hitherto been considered of use.

Victor Horsley, who contributes an interesting article on cretinism in the "Dictionary of Psychological Medicine," says: "A good deal can be done in the direction of palliation" by keeping the patient very warm in a hot atmosphere, thoroughly clothed, the employment of hot air and Turkish baths, and the internal administration of pilocarpine or tincture of jaborandi.

Now we can look for a better result. Horsley, writing on the same subject, remarks: "No treatment of cretinism has ever been attempted from the point of view suggested by the pathology, for the reason that until recently the latter has been so extremely obscure. It is obvious, however, that where the idiotic condition can be shown to be originated by loss of function of the thyroid body, an attempt should be made to restore that function. The only way in which this would be possible would be by the method originally suggested by Prof. Schiff, viz., transplantation of the thyroid gland."*

Cases have lately been published in which the thyroid treatment has been carried out with a marked change in the condition of the patient.

Dr. John Gibson, of Brisbane, records the following case:—

Male cretin, aged seven years, on whom he had twice grafted the thyroid gland from a lamb, first into the right mammary region on July 20, 1891, and again on May 20, 1892, he introduced

* "Dictionary of Psychological Medicine," Hack Tuke, 1892.

a gland into the peritoneal cavity. The paper which he originally read before the Intercolonial Medical Congress of Australia last year was published in this country last January.* The numerous accompanying illustrations, reproduced from photographs, show a marked change in the appearance of the child, a brighter and more intellectual look is especially noticeable. He had grown two inches. Four months after the second grafting Gibson concludes his remarks by, "To all appearance he is now merely a well nourished baby boy, with soft, natural skin, and firm limbs, with somewhat thick features and lips, but no myxœdematous swelling. The grafting, to sum up shortly, has cured his myxœdema, and has lessened his cretinism."

Only a few months ago the following case was published by Dr. Edward Carmichael, of Edinburgh†:—

Cretin about nine years of age. Patient was treated with the hypodermic injection of thyroid extract. Commencing in April, 1892, the injections were continued until October, when feeding with the raw gland was substituted. The accompanying photographs show a marvellous effect, and the observer states that "The result of the thyroid treatment was continuous improvement. As week by week passed some mark of improvement was always seen. Marked improvement in intelligence was seen in many little actions." The patient could not be recognized by friends as the same child.

These two cases show what may be expected, no matter which mode of introducing the thyroid is preferred. In addition to these, Dr. Affleck‡ showed at Edinburgh "a case of sporadic cretinism in a young man which had been greatly improved by implantation of thyroid on three occasions." Dr. John Thomson§ has treated a couple of cretins, aged respectively four and 18 years, by feeding, with "wonderful success." Dr. Byrom Bramwell showed a girl aged 8½ years at the Edin. Med. Chir. Soc., on February 16, whose "mental condition had become completely transformed," and who had grown an inch in height after five weeks of thyroid feeding.|| It was on a case of adult female

* "The Function of the Thyroid Gland, with Observations on a Case of Thyroid Grafting," "Brit. Med. Journ.," Jan. 14, 1893.

† "Cretinism Treated by the Hypodermic Injection of Thyroid Extract and by Feeding," "Lancet," March 18th, 1893.

‡ "Brit. Med. Journ.," Feb. 25, 1893, p. 411, and "Edin. Med. Journ.," May.

§ "Brit. Med. Journ." and "Lancet," Feb. 25, 1893, and "Edin. Med. Journ.," May. The latter case is reported in full on p. 1022, and is accompanied by illustrations.

|| "Edin. Med. Journ.," May, 1893, p. 992.

cretin that Vermehren, of Copenhagen,* used, with success, the preparation which he has called "Thyroidin," and he has since used it with like result on another. Dr. A. G. Francis, of Hull, has informed me of a case of congenital myxœdema, as much as 36 years of age, whom he has under his care, and who "is improving immensely" under thyroid treatment.†

There is one more case recorded in which the thyroid has been employed in the treatment of cretinism. This was the case of Dr. V. Robin, of Lyons.‡ The fresh juice from sheep's thyroids was injected daily into a child of seven years of age. "Improvement was immediate. In fact the child is quite unrecognizable to those who knew it before treatment." The injections were afterwards supplemented by successfully grafting two lobes of a sheep's thyroid in the submammary region.

Dr. William Robinson, of Darlington, has not been so successful. He informs me that the case of sporadic cretin that he referred to in the "*Brit. Med. Journ.*"§ as being slightly improved by thyroid extract was a female aged 10½ years, who had weekly injections of an extract prepared in accordance with Dr. G. Murray's directions. The dose was given beginning with six and increasing up to thirty minims for two months, after which one thyroid gland was eaten weekly for several weeks. The result was only very slight improvement—"not sufficient to justify further treatment." In a second case, a male semi-cretin, aged 28 years, there was "no visible improvement" after a similar two months' course of hypodermic injections.

Although the result here was disappointing, and also in a male cretin, aged eight, who was referred to by Mr. Evans at a meeting of a medical society on March 24th, "who for six weeks had taken one thyroid lobe twice a week without any improvement,"|| such a result appears to be rather the exception than the rule, and we may expect to see great benefit derived from the new treatment in this supposed incurable disease. It is possible that by applying the remedy after the manner of Robin the best results are to be obtained.

* "*Brit. Med. Journ.*" (Epitome), April 15, 1893, and "*Deut. Med. Woch.*," March 16, 1893.

† "*Brit. Med. Journ.*," April 8, 1893, and Private Letter dated Aug. 5th.

‡ "*Brit. Med. Journ.*" (Epitome), Sept. 10, 1892, and "*Lyon. Méd.*," Aug. 7, 1892.

§ "*Brit. Med. Journ.*," Jan. 7, 1893, p. 38.

|| "*Brit. Med. Journ.*," April 8, 1893, p. 767.

Personal Experience of the Treatment in Myxædema with Insanity.

It has been my good fortune to see four cases of myxædema treated by this modern method in Colney Hatch Asylum during the past twelve months, and so I have been able to notice closely what changes and improvement actually took place in the patient's condition, both bodily and mentally.

Of the four cases in Colney Hatch, one is that of a woman in an advanced stage of myxædema, whom I myself treated, and whose case I reported in the "British Medical Journal" for December 24, 1892, two were women in an early stage of the disease, and the remaining case is that of a man presenting all the well-marked characters of fully-developed myxædema.

I. First let me refer again to my case of M. B. She was a woman of 50 years of age, with myxædema of at least eight years' existence, and whose insanity, which took the form of religious melancholia, was of $4\frac{1}{2}$ years' duration. After treatment by subcutaneous injections of thyroid extract, extending over three months, there was great change in her bodily appearance, but the improvement in her mental condition was even more marked. She was cheerful, bright, usefully employed, free from all delusions, and might be considered quite sane; if there had been friends anxious to take her out of the asylum there is no reason why they should not have done so.

After October 4th the injections were discontinued, and unfortunately nothing was done to maintain the improved condition brought about. In a short time the patient slowly but steadily relapsed—that is to say, there was some return to the myxædematous appearance that she previously possessed; her voice became somewhat thicker, hearing less acute, puffiness of face more marked, slower in movements, and she did not feel in such good health, and with this a drop of the temperature again, nearly to its original low position. But she never reached anything like the stage present before the injections were commenced. It is satisfactory to note that her mind was still clear, and has remained so all along.

On February 28th the treatment was renewed in another form. On that day Dr. Seward gave the patient a thyroid powder, representing $\frac{1}{6}$ of an entire thyroid gland of a sheep.* Between then and May 9th the patient took 17 similar powders. She then had her photograph taken, which is reproduced as Fig. 2, and for contrast to show the striking change that has taken place in the

* Supplied under the direction of Mr. Edmund White by C. B. Allen, Pharmaceutical Chemist, Kilburn.



Mr. F. before commencing treatment.



Fig. 2. Mr. F. a year later, after treatment.



patient's condition Fig. 1 is reproduced from a photograph that was taken of the patient before any treatment was commenced, exactly 12 months previously. It may be mentioned that at that time the patient was quite unable to open her eyes owing to the swollen state of her eyelids, and her mind was such that she did not know what was being done, and she has since had no recollection of the event. Her earlier days in the asylum are a perfect blank, from which she was first awakened by the thyroid injections, only, however, to recall events that took place before her admission. In the last photograph taken she has much the same appearance as she had when the hypodermic injections were first discontinued, an appearance which she still maintains.

The patient has now (Aug. 5) had the powders on 33 occasions first at intervals of two or three days, then every fourth day, and now for the last six weeks not oftener than every fifth day. This is found to keep the temperature as nearly as possible at normal; in fact, during the past week there has been a tendency to rise above it. The last three months she has had three grains of a powder obtained from another firm of druggists,* which has answered equally well. She has always taken the powder in jam after breakfast, and on those days remains in bed until mid-day.

The patient's improved condition is maintained, and she now shows only a very slight degree of the myxœdematous facies, but she is somewhat crippled owing to the old rheumatoid arthritis from which she suffered before the myxœdematous process started; she is, however, able to get about and make herself useful in the ward. She is quite sensible in her speech, and is very cheerful, and she regards her present condition as a happy release from her former wretched state.

Mentally she would be described only as somewhat weak-minded.

The action of the drug upon her joints is remarkable. She suffers intense pain in all her joints after the powders are taken, although recently, perhaps, to rather a less degree. This comes on shortly after the powder is swallowed, and continues for the greater part of the day. This has not been noted in any previously recorded case, and is probably due to the chronic rheumatoid affection of her joints, which remain permanently enlarged and deformed.

The patient's weight, which, after a month's regular injections, fell from 9st. 12lbs. to 8st. 8lbs. (August, 1892), has since gradually increased, and on May 18th had reached 10st. 8lb., notwithstanding the absence of much of the œdema. This has been maintained.

From charts, with a complete record of the patient's tempera-

* Prepared by Ferris and Co., of Bristol, who with a number of other firms now supply several preparations of the thyroid.

ture since she first went under the thyroid treatment (May 10th, 1892), it is seen that the original subnormal temperature gradually rose and remained about normal so long as the injections were continued, and for a few weeks beyond, after which it again fell to its previous low position, to again ascend when the powders were administered. On a separate chart there was recorded the rise of temperature that followed in the course of the day after the powder was given, the temperature being taken every two hours. It is interesting to note that (as in the case with injections), after the early administrations, there is a very sudden rise and fall again of the temperature, which after a time becomes much less as the normal is maintained, and recently it has only risen a few points during the day.

The two early cases of myxœdema were treated in different ways.

II.—The first is that of L. B., a female, aged 51, who was admitted into Colney Hatch, April 8th, 1892, for melancholia. She was irritable, restless, and quarrelsome, with delusions of suspicion. She had attempted to commit suicide. She was a Jewess and had been married. She presented the signs of the disease in an early stage; there was slight puffiness of her face, the skin somewhat thickened, dry and rough, and her hands large and swollen. Hair scanty and rough. Her voice was inclined to be thick, slow and monotonous, and she was somewhat deaf. Her temperature was sub-normal, never reaching the normal line. Weight, 9st. 11lbs.

While this patient was under my care I treated her by the hypodermic injection of the fluid extract, obtained, as in the case of the other, from Brady and Martin, of Newcastle. Between the 29th August and 4th October she was given 14 injections of *mxx.* each, there being an interval of a day between each, with a few exceptions. She objected strongly to the injections, not because they hurt, but because, she said, that she was "marked for life, and would be turned out into the streets as a thief." At the end of this time there was an undoubted slight degree of change noticeable, although she could not be said to have recovered her senses. Her body temperature rose to a more normal position, and her mental faculties were much clearer. It is possible that further improvement might have followed if the treatment had only been persisted in, but unfortunately it was allowed to drop, and what little improvement had been produced has more or less disappeared, and she is now in nearly the same condition as she was in last August.

III.—The other female patient, M. S., was treated by my colleague, Mr. H. G. Shaw, by the ingestion of raw thyroids. She had been resident in the asylum since December, 1890. She was a

single woman, 45 years of age. She was restless, complained of noises in her head, and had aural hallucinations and optical delusions, and others of suspicion. It had been noticed that her features had been gradually assuming a rather more thickened aspect, and her voice was thicker and more monotonous in character than on admission. She was becoming more languid and slower in her movements, and she suffered much from cold, always being worse when the day was chilly. Her temperature was found to be seldom much above 97°.

It was decided, therefore, to try the effect of the raw gland on her. Commencing in October last, she continued to have them at intervals of one and then two days, for a period of six weeks, on eight different occasions. She took them minced in the form of sandwiches. After the first once or twice she complained of headache and giddiness, but after the later three administrations the ill-effects assumed a more grave form; she had violent pain in the abdomen, followed by loss of consciousness. The administration was, therefore, stopped. For a fortnight the patient remained in bed in a somewhat critical condition, and as during this short course of treatment she lost considerably over two stone in weight, there cannot be the slightest doubt but that the drug was too rapidly pushed, and that better effects might have been expected from a smaller dose. But it is by such experiences that we learn. On November 21st, 1892, it is noted that "a considerable improvement, both mentally and physically, has followed." This patient is now in very good health, but still shows some signs of the myxœdema, although to less degree than last October. She says herself that she is certainly feeling better than she did at that time; she has also been gaining in weight, and in May a luxuriant crop of new hair sprung up on her head. Her mind is clear, she is useful in the ward, and is always willing to oblige.

IV.—I now come to the case of the man suffering from advanced myxœdema, who is now under the care of Mr. F. Bryan, and who will publish the case in full. The patient, J. T., is 33 years of age, and has been an inmate of the asylum six years, being admitted for melancholia, with aural hallucinations and suicidal attempt. In the original certificate it is stated that this condition seems to have arisen from concussion of the brain, the result of accident. From the note made on admission it is evident that myxœdema was present, but not recognized, and it is said that his condition was "suggestive of chronic kidney disease." From further notes it is clear that the myxœdema became more marked, and still remained unsuspected until September 1892, when it was proposed to let him undergo a course of treatment by the thyroid method (injections), but some difficulty arose in having the patient photographed before commencing the treatment, and it was consequently postponed for a time. Meantime the administration of a powder had been proposed, and proved to be followed by as marked

results as that following the injection method, and so it was decided to carry out this mode of administration on the patient.

Treatment was commenced on February 25th of this year, and is being continued at the present time. During the three months that had elapsed, up to May 6th, the patient had taken 23 powders (White's) similar to those used in the case of M. B.; for the first three weeks he had a powder every other day, afterwards one every fourth day. From May 8th to May 23rd half a powder every other day was taken. On May 25th it was altered to five grains (Ferris) every other day, which was continued until June 18th, when the temperature rose to 101° , and there was severe vomiting. For three days the patient felt very ill, and his temperature remained high; it then fell to 96.4° . Similar powders were commenced again on June 26th, and he had one a week, which has lately been increased to two. Up to the present time (August 5th) he has had the drug on 52 occasions, when he has remained in bed during the morning.

At the time of commencing the treatment the patient had the appearance of a typical case of fully-developed myxœdema, so that there is no need to repeat a minute description of his appearance. By May he had altered to a wonderful extent; he was more healthy-looking, and had lost the characteristic look almost entirely. His hair had grown so that it was quite thick; his voice was clearer, his eyesight improved, and he did not have sudden attacks of blindness, of which he formerly complained. The patient said himself that he was feeling much stronger and better in health, warmer and more comfortable. He had now lost the weakness of which he complained at first after taking the powders.

This condition is being fully maintained. The man is sensible, and appears to be almost if not quite free from delusions. He says that six years ago he was taken to the Middlesex Hospital owing to an accident that befell him, and he remembers being spoken of at that time as a case of myxœdema.

The patient's weight gradually fell from 10st. 12lbs. on February 25th to 9st. 7lbs. on April 29th. Since that date it has been rising, and has now reached 10st. 3lbs. Before treatment his temperature was almost invariably below the 97 line; after the commencement of the treatment it rose to the 98 line, and for some time remained between 98° and 98.4° , but now it varies between 97° and 98° . It is also interesting to note a distinct increase in the urine passed during the 24 hours; the amount has gradually risen from about 50ozs. in February to 70ozs. in August.

Beyond the first weakness and the attack of vomiting, with rise of temperature that once occurred, the patient has been quite free from ill-effects.

Other Cases of Myxœdema treated with Thyroid Preparations.

Besides the cases just described, which we have and still are treating in Colney Hatch, I can speak from personal experience of the great change and benefit which I have seen in several others thus treated.

I am able to add a few short notes of one or two cases that have not yet been published.* The first of these is particularly interesting on account of the patient's family history, where close relatives were affected either with insanity, imbecility, or Graves' disease. For these notes I am indebted to Dr. A. Maude, of Westerham, who is the author of several papers on Graves' disease. In the second case the patient herself had been the subject of this disease only a short time previously. Dr. Wilkin Stabb, of Torquay, kindly sent me the notes. In connection with the subject of Graves' disease, it may be mentioned that Dr. Duke's† patient had a goitre on the right side, and Dr. Putnam's second case‡ had an enlarged thyroid, and suffered from tachycardia, but had no exophthalmos. In the latter case we are told that the thyroid decreased in size with the rapid improvement that took place, and also that there was a strong history of myxœdema in the family.

I.—Mrs. J., a labourer's wife, aged 60, has been under the observation of Dr. Maude § since June, 1887. The onset of myxœdema was very gradual, apparently beginning in 1888. In December last the case presented a large number of the symptoms of the disease as given in the Clin. Soc. Report, but the facial change was never very highly marked. She may be described as an early, slow case of myxœdema, whose mental state was that of chronic dementia with suspicions of neglect and conspiracy rather than the usual mental state. She had some chronic arthritis and emphysema, and at intervals attacks of "stupor" had occurred.

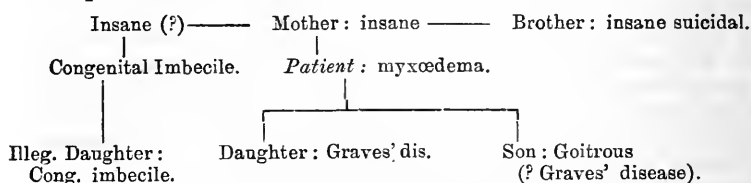
* In the "Table of Published Cases" it is to be noted that where an asterisk is affixed to a number it indicates that additional information has been added to those cases than is obtainable from the references given. For these extra facts, now for the first time published, I am indebted to the physician whose care the patient was under, and who reported or showed the case in the first instance.

† "Birmingham Med. Rev.," Aug., 1893.

‡ "American Journ. Med. Sc.," Aug., 1893. Dr. Putnam also refers briefly to three cases of acromegalia who were improved by taking thyroids, and he quotes from Drs. Barron and Stattuck that they had used the gland with benefit in simple obesity.

§ The patient was shown at the South Eastern Br. B.M. A. on May 11, 1893. See "Brit. Med. Journ.," May 6, 1893.

The family history of this patient was very neurotic, and may be thus represented:—



Treatment was commenced on December 10th, 1892, by thyroid feeding, raw sheep's thyroids being given pounded as follows:—

Dec. 10	{	One thyroid at 11 a.m. The pulse always rose to over 100, and occasionally the patient sweated freely after the dose.
" 14		
Jan. 3		
" 10		
" 17		
" 24		

Feb. 1.—Two thyroids. The patient became very faint and collapsed, and her pulse increased to 130, and became very irregular.

Feb. 7.—Has lost flesh considerably. Skin warm and moist. Mental state improved.

April 1.—Relapsing rapidly.

May 4.—Very lethargic.

May 5.—Treatment was begun with Burroughs and Wellcome's tabloids. Two tabloids, representing 5grs. each, every day, and continued for ten days.

With regard to the ill-effects, both the raw glands and the tabloids produced great occipital headache, faintness, and a general sense of discomfort, but the former alone caused sickness. The arthritis, which was always of a slight and passive form, with no marked articular effusion and pain, but great knottiness and thickening of the fingers, was not affected by the treatment (as in my case of M. B.). The pain produced by the thyroid extract was not in the joints, but apparently a general muscular pain. As regards the occipital pain, an exceedingly common symptom, Dr. Maude remarks that it does not seem to be superficial, and suggests that it is probably due to distension of the torcula and sinuses at the back of the skull.

Dr. Maude will not express a decided opinion as to whether his patient was insane apart from the myxœdema or whether insanity pre-existed, as the onset of the mental state and the swelling, etc., were both so gradual. He says that he had an impression quite two years before he made up his mind that she had myxœdema, that she had primary dementia, but he goes on to remark that primary dementia in a woman of that age is unlikely, it being more likely that the dementia was myxœdematous all along.

Although the improvement that has so far occurred in the patient's condition was not as marked as in many that have been reported, yet her mental state is much improved. "She can now (Aug. 10) work in the house, keep up a sustained conversation on simple matters such as the weather, her health, or the conduct of her neighbours, and has no delusions at all, though she remains very grumbling and complaining. A point worth noting is that as she improves under treatment she acquires more of that fatuous bonhomie which myxœdematous people often have."

Pilocarpin had previously proved a complete failure.

II.—A female (spinster) aged 22, who has been under the care of and been treated by Dr. Wilkin Stabb,* had had exophthalmic goitre for eight years. This, however, disappeared after an attack of measles, and was followed by the slow development of a condition which was diagnosed by Dr. Ord in December, 1891, as that of myxœdema. The symptoms of this latter probably commenced in the beginning of 1890. Dr. Stabb commenced treatment on December 20, 1892, and is still continuing it in a modified form. At first he gave half a gland (one lobe) twice a week, coarsely minced and covered with port wine and water, $2\frac{1}{2}$ hours after a meal. On three occasions a whole gland was given at a time, and once she had four glands within seven days. Sometimes treatment was omitted for a few days, and tonics given in place of the thyroids, on account of a feeling of malaise and rapidity of pulse. The patient is now (August 5) taking "White's powders," being equivalent to $\frac{1}{3}$ gland once a week.

The results obtained so far are briefly thus:—The skin acted slightly after the first, and freely after the second dose. As regards weight, the patient lost $13\frac{1}{4}$ lbs. in just a month, but has regained it since. Her pulse rose from 70 to 100 and 120, speech became normal, lips thinned, hair less dry, malar flush departed, and she ceased to feel cold. The temperature, which before treatment varied irregularly between 94° and 97° , was the last symptom to show any definite improvement, but it is now always above 97° , and is generally about 98° . She seems now to be a healthy person. The only ill-effect noticed was an increased lassitude during the first month of treatment.

III.—Dr. A. Barron says of his first patient,† after having the juice of half a sheep's thyroid subcutaneously once a week for four months, that she appeared to have returned to her normal condition, and that her weight fell from 12st. 7lb. to 10st. 2lb. The treatment was begun in May, 1892, and now (August 10, 1893) she appeared to be perfectly well, and has a fairly respectable head of hair. There have been no ill-effects. The injections

* Who referred to the case at the South Western Br. B.M. A. on April 13, 1893. See "Brit. Med. Journ.," May 6, 1893.

† "Brit. Med. Journ.," Dec. 24, 1892.

have been given up, and in their place the patient takes six Burroughs and Wellcome's tabloids every Sunday.

IV.—Mr. William Dobbin says that his case, who was referred to in the "*Brit. Med. Journ.*,"* was a female of about 40 years of age, with myxœdema of from four to five years' duration. For about six months he prepared an extract of the thyroid according to the formula of Dr. G. Murray, and administered it twice a week hypodermically. After trying minced raw thyroid, which, however, could not be borne as it produced diarrhœa, he used the juice prepared after Hector Mackenzie's method, viz., thyroid macerated in tepid water, strained through muslin, and given in beef tea. Lately tabloids of Burroughs and Wellcome, three twice a day, have been substituted. There have been no ill-effects, except once there was an abscess after injection.

The result has been that the swelling has diminished, unsteadiness of gait removed, and very fair health recovered. The patient can now (August 10, 1893), after about thirteen months of treatment, attend to her domestic duties; she enjoys life, and considers herself well.

Dr. Mackenzie has informed me that amongst cases he has seen treated, in one, that of an old lady, where the disease was of old standing, very little improvement took place, but there was really very little amiss with the patient. In another case improvement was only partial, and although the swelling disappeared and the hair grew, the patient remained very feeble. He adds that "in every case the mental improvement has been unquestionable."

Dr. Arthur Davies, who has had considerable experience with the new treatment, has kindly sent me the following brief notes of the seven cases of myxœdema whom he has treated by thyroid extract given hypodermically and by feeding with dried thyroid powder or tabloids. As will be seen from the "*Table of Published Cases*," most of these have been shown or described elsewhere, but in these notes there is contained some additional information of interest, and at the same time they are brought up to date (Aug. 10, 1893). We thus know the present condition of the patients.

I.—G. W., male, married, age 43; duration of disease 12 years. Treated by hypodermic injections of thyroid extract. Improvement very remarkable after three months, and the patient was scarcely recognizable. Tendency to relapse after six weeks' interval, but again improved under treatment. No bad effects whatever. Under treatment one and a half year.

II.—Alice A., married, age 46; duration seven years. Greatly

* "*Brit. Med. Journ.*," Feb. 4, 1893.

improved after three months' treatment by hypodermic injections. Tendency to relapse after five weeks' cessation, then put on tabloids and improvement again marked. No bad symptoms. Under treatment one year.

III.—Ada B., single, age 47; duration six years. Treated by thyroid powders. Very great improvement and patient hardly recognizable. No tendency to relapse after five weeks. Rapid loss of weight—four stone in 10 weeks. Under treatment seven months.

IV.—Joseph M., married, age 45; duration five to six years. Treated with thyroid powders. Very marked improvement and patient not recognizable. All trace of myxœdema was gone in three months. No bad symptoms. Under treatment seven months. No tendency to relapse as yet.

V.—May B., married, age 59; duration 10 years. No trace of myxœdema after three months' treatment by thyroid tabloids. No bad effects. Tendency to relapse after six weeks, but again improved under treatment. Total time of treatment seven months.

VI.—Alice T., married, age 54; duration four years. Improved markedly after taking thyroid tabloids. Under treatment four months.

VII.—Susan P., age 43; duration eight years. Improved at first for six weeks under injections. Patient lost sight of for two months, then put on thyroid tabloids and again improved. Under treatment on and off for 16 months.

Comparison of the Various Methods: General Conclusions.

There can be no doubt as to the advantages which the thyroid treatment holds over every other drug or mode of treatment in this disease, and in conclusion it only remains to say a word or two as to the best method of administering this new but powerful remedy.

Already I have passed in review with more or less fulness the various methods that have been proposed. They may be summarized as follows:—

1. Thyroid grafting.
2. Subcutaneous injection of an extract of the thyroid gland.
3. Ingestion of an extract (aqueous or glycerine) of the thyroid gland.
4. Ingestion of thyroid gland, raw or slightly cooked.
5. Ingestion of a dry extract obtained from the thyroid gland, in the form of a powder, tabloid or capsule, or pill.
6. Ingestion of thyroidin.

Of thyroid grafting I think I have said sufficient to show that so far the results obtained have, in a manner, been disappointing and scarcely what at one time was hoped of it. They have certainly not been followed by the same striking results as those ensuing from the more recent methods adopted. At the same time considering the fact that the treatment by these latter is not a permanent cure, and that the drug has to be taken at certain intervals in order to maintain the improved condition brought about (a fact which is easy to understand), it would seem that our only hope of a permanent cure for myxœdema lies in some method by which transplantation can be brought to greater perfection and the graft made capable of living in its new position. Professor Horsley, at Newcastle, has lately called attention to this when he said * that "it would appear more reasonable to perform transplantation after a prefatory treatment by feeding or injection so as to provide that the grafted gland should be embedded in normal connective tissue and not in diseased tissue."

By the injection of a fluid extract subcutaneously the treatment became at once more simple and free from the many risks of a large operation. It was a small operation that no physician would mind undertaking, and its immediate effects were much more striking. Moreover, it has been shown that the cure could be maintained by the occasional use of a smaller amount than that first employed, and the ill effects that followed its use in many of the earlier cases have been shown to be much lessened or avoided by the more careful use of the fluid and by paying greater heed to the regulation of the dose, and to the subject on whom it was being used.

A watery or a glycerine extract appears to be equally efficacious, and either can be made without a great amount of trouble, although it is perhaps better to obtain it at regular intervals from some druggist of repute, several of whom now supply it at a moderate cost.

With regard to the best dose to employ this would depend on circumstances, such as the age of the patient, duration of the disease, and various other small points that can only be decided in individual instances. Dr. Murray, at the Clinical Society, said he now injected about mxxv . at a time, very slowly, which caused less irritation than a larger dose,

* Report of Annual Meeting of Brit. Med. Assoc. at Newcastle-on-Tyne, "Lancet," Aug. 5, 1893,

and in order to maintain the patient in health he recommended the use of a much smaller dose.* In this latter, which he called the second stage of the treatment, he had also given the extract by the mouth—daily doses of *m*x. given in water—and on another occasion † “he urged a small dose daily rather than a large dose at longer intervals.”

Although the ingestion of thyroid glands, whether raw or slightly cooked, appears perhaps the simplest method possible, it certainly is not without drawbacks. The principal of these is the difficulty of giving a fixed dose. In some cases in which this method has been employed bad symptoms have followed. And as the thyroid glands vary greatly in size, not only in different animals, but also in the same species,‡ and probably also vary in their activity with the age of the animal and other circumstances, if the patient be allowed to procure the gland themselves their eating may be followed by results of a very unfavourable nature. It is essential, therefore, that when used they should be ordered by the medical attendant, and whilst being employed the patient should remain constantly under his observation. When the raw glands are given they should not be more than one lobe of the thyroid two or three times a week, as recommended by Drs. Pasteur and Calvert.§

Dr. Hector Mackenzie does not now allow the raw gland to be eaten, as it has given rise to gastro-intestinal symptoms, but gives his patient a freshly-made extract. Writing with regard to his first case, in a private letter on May 5th, he said, “My patient is keeping very well. I don’t think anyone seeing her now would suspect her to be a case of myxœdema. In fact, within a few weeks of the commencement of the treatment the characteristic appearance of symptoms had disappeared. She continues to have a freshly prepared liquid extract of the gland once a week. She comes up to the hospital where the nurse prepares the extract for her, simply mincing it up finely, letting it stand for a time in some beef tea and then straining. The catamenia have lately returned after an absence of five years.”

* “Lancet,” Feb. 4, 1893, p. 248.

† “Brit. Med. Journ.,” Feb. 25, 1893, p. 411. See also Dr. Murray’s illustrated paper on “The Treatment of Myxœdema and Cretinism,” “Lancet,” May 13, 1893.

‡ See “Lancet,” Feb. 4, 1893, p. 274.

§ “Clinical Society,” Jan. 27, 1893; “Lancet,” Feb. 4, 1893.

Again, on August 5, he says that his "original patient" was in very good health and there were no signs of myxœdema whatever. Lately she has been having the expressed juice of a whole thyroid gland once a week, and occasionally "White's thyroid powders" were substituted (three a week, the equivalent of half a gland). She, however, preferred the fresh extract.

The use of the extract in the form of a powder is a distinct advantage in several respects. It is a grey tasteless powder which will keep good for a sufficient period. It can be given in a variety of vehicles. It is prepared in a scientific way,* so the dose can be accurately measured. The results from its employment have been as satisfactory as those otherwise obtained. Or, if preferred, tabloids prepared by compressing the powder can now be obtained, each being equivalent to five grains of the fresh thyroid.† They have received considerable favour.

Dr. Arthur Davies wrote me under date May 9th:—"As regards the cases I have treated solely by giving the dried thyroid extract, each one is still in a vastly improved state; indeed, one may now say that there is no sign or symptom of myxœdema in them. I am keeping up the treatment, but by degrees gradually lessening the frequency of the dose. I formerly gave White's powders, but now use Burroughs and Wellcome's tabloids, which I find equally efficacious, though perhaps slower in action. Of course, as regards rapidity of treatment, the subcutaneous injection is the most quick." Whichever way is preferred, the rapidity of the recovery appears to depend upon the amount of the extract employed. It is possible, however, that by giving the extract in smaller quantities over a longer period that a less rapid recovery will be found to be more beneficial to the patient, and lead to a more lasting improvement.

At the time when the drug is exerting its power most actively the patient often feels weakened and out of sorts, and it is then that the use of tonics in combination with the new treatment, as suggested by Dr. McCall Anderson,‡ is not amiss, and may be employed with advantage. Nitro-

* Each powder representing the sixth part of a sheep's thyroid as supplied by Mr. Allen, and 60 grains of the powder being equivalent to one fresh gland as supplied by Ferris, of Bristol. The latter firm also make the powder up into capsules.

† Prepared by Messrs. Burroughs and Wellcome. See "B. M. J.," April 1 p. 701.

‡ "The Treatment of Myxœdema," "The Practitioner," Jan., 1893.

glycerine, too, has been found by Mr. C. J. B. Johnson to "promptly relieve the headaches which came on when the thyroid was freely given."*

I will now quote from a letter I received from my friend Dr. Murray on the 7th May, in which he gives the latest conclusions as regards treatment at which he has arrived. "The treatment consists of two stages—first, removal of symptoms; second, maintaining improved condition. The first stage can be carried out by injections or by the mouth. If injections are used not more than $\text{m}\chi\text{v}$. at a time should be injected, as larger doses are apt to cause irritation. Injections may be repeated two or three times a week. If given by the mouth it is best to start with a daily dose of about $\text{m}\chi$.; if not sufficient give it twice. If there is undue acceleration of the pulse diminish the dose. In the secondary stage it is best to give by the mouth, and give the smallest daily dose which keeps the temperature normal or above 97° . I find my original glycerine extract, with carbolic omitted, made by Brady and Martin, most satisfactory to give by the mouth. ziss .—one whole sheep's thyroid."

Writing to me again a few days later (May 14th) with regard to his first case—that which has borne the test of time the longest—he says:—"My first case has now no symptom of myxœdema left, and is as well as she could be, both in mind and body, leading an active life as a working man's wife. She takes regularly zj . of the thyroid extract each week in daily $\text{m}\chi$. doses. As it is now more than two years since the treatment was first started I think we can fairly conclude that the improvement may be maintained indefinitely." He also stated, concerning the patient whose photo was reproduced in the "*Brit. Med. Journ.*," August 27, 1892, that she was kept in the improved condition by a daily dose of mv . of the extract, and that the photograph taken a year ago represents the present condition very well, except that some of the hair is now seven inches long.

In conclusion, I will quote a remark of Dr. Murray's with which I feel sure many will agree. "If all cases of myxœdema are put on the treatment as soon as diagnosed the insanity of myxœdema ought to cease to exist, and if cretins are fed on some thyroid preparation from youth up they should develop into more useful members of the community." I think it is the duty of all, who in future have the opportunity, to test the truth of what has been said regarding

* "*Brit. Med. Journ.*," May 6, 1893, p. 955.

this new and wonderful remedy, one which has rightly been said to be "one of the greatest therapeutic triumphs of the age."*

REFERENCES.

Reproductions from photographs of patients who have undergone the thyroid treatment may be found in the following journals:—"Brit. Med. Journ.," Aug. 27, 1892; Jan. 14, 1893, p. 64; April 8, 1893, pp. 737 and 738. "Glas. Med. Journ.," Sept., 1892. "Clin. Soc. Trans.," Vol. xxv., 1892. "Lancet," May 13, 1893. "Sheffield Med. Journ.," July, 1893, etc.

I have to acknowledge my indebtedness to Drs. Murray, Davies, and Mackenzie for the use of some excellent photographs showing myxœdematous patients before and after treatment by the thyroid, which were shown at the meeting of the Medico-Psych. Assoc. on May 18th, 1893.

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For Tables see Appendix.

CLINICAL NOTES AND CASES.

Hypertrophy of Scalp. By GEORGE FOY, F.R.C.S., Dublin.

Dr. McDowall will find a case of extraordinary development of the scalp reported in John Bell's article "On the Unlimited Growth of Tumours," which is reprinted in his "Principles of Surgery," Vol. iii., 4to., 1808 A.D., published by Longman, Hurst, Rees, and Orme, London. The book is now scarce, and the case is so remarkable that I give a summary of it.

Eleanor FitzGerald, a native of Ireland, born in the

* "Lancet," Feb. 4, 1893.

County Carlow, and now about fifty years of age, was carried by her parents when a child to Charlestown, in South Carolina, to which place they emigrated. There when grown up she married a ship carpenter, and lived with her husband in Charlestown fourteen years, where she bore him seven children. She is a woman of a very singular appearance; her face of a gipsy, or rather Tartar cast, with thick lips, a peaked nose, small eyes, small wrinkled forehead; bears the marks of a variety of climates; her complexion is of a deep yellow or dingy colour, sunburnt and freckled. Her hair is very black and matted; the skin of her body fair and healthy, but studded over, especially on the arms and shoulders, with small tubercles, like berries. The enormous growth of skin, which hangs from her neck and breast, and which, when she opens her tattered clothes, rolls out like the bowels, one turn over another, is at once disgusting and horrible. Were she not alive and known to thousands, wandering at this moment and begging her bread, I should be afraid even to expose this drawing, which is a true portrait, much more to relate her tale.

“About five years ago she embarked with her husband for London, his native place, at Charlestown, in the ship *Charming Nancy*, Captain Stewart, a store ship, crowded with more than 150 people, passengers and crew. After they had been three weeks at sea, and after they had accomplished, as she imagines, half their voyage, they were overtaken by a dreadful storm of thunder and very vivid lightning, with rain and hail. The ship was struck about mid-day; the numbers who were struck down and never rose again, and the numbers who were deprived of sight, I fear, she, in the fervour of impressing her pitiful tale, exaggerates very greatly; but she herself was struck down, and her husband was among the killed. How long she lay upon the deck she never knew, but upon recovering she was sensible of a smart burning pain on the left side of her head. The part felt heavy, and on putting up her hand she found that a soft and baggy tumour had arisen all at once as big, she says, as the crown of a hat, which filled every day more and more, and fell lower towards the shoulder, for it was a tumour of the back part of the hairy scalp behind the ear. The voyage lasted about three weeks, and before the ship entered the Thames this tumour burst, and continued for a long while to distil a pure limpid serum, the bag having by this time descended so low as to be flapping upon the shoulder; but the ear was not yet

elongated, and the tumour was still limited to that part of the hairy scalp which is distinguished in the drawing by a blacker colour. The serum continued to distil hot and acrid from this thick flap of skin, excoriating the neck and breast, and still the tumour continued to be elongated, hanging over the shoulder, and extending over the breast."

She showed the tumour to the surgeon at St. Bartholomew's and Guy's Hospitals, who were unwilling to operate. Next she became an inmate of the Hôtel Dieu, where M. Dessault excised the heaviest and most pendulous part of the tumour. But it did not fail to grow again, and increased very rapidly, and took the singular form of longitudinal plaits. From France she travelled to Ireland, and lived there by begging until frightened by the Rebellion of 1788. She sought refuge in Scotland. Bell thus describes the tumour:—

"The chief volume of the tumour certainly begins in that part which hangs thick and baggy from the back of the head, and its origin in the lowest part of the hairy scalp is denoted by its black colour, proceeding from the roots and stubs of her dark hair. This coloured part, indicating its origin from the scalp, is extended now as low as the shoulder. It has a firm surface, large tubercles, a scaly hardness, and a blue colour; the stubs and roots of her black hair are seen growing in it. From this descends a great and voluminous roll of skin, which hangs over the breast and belly, to the length of a yard and a half, like a bundle of intestines, and from her ear, which is elongated to a prodigious length and size, still hangs another corresponding roll of skin, which, falling from the neck and face, constitutes a great part of the volume of enlarged skin, which, as she sits, hangs over her knees. Betwixt those voluminous rolls of soft and flaccid skin are the scars of those incisions made in the Hotel Dieu. One large and voluminous fold, taking the rolls of skin down to the ribs, serving like ligaments to suspend them, and drawing them into the convoluted forms of intestines, hangs from the neck, and her epaulet-like fold comes from the shoulder, falls over the left breast, and forms the boundary of the tumour on that side. . . . This immense volume of skin is thin where it hangs from the occiput, neck, chin, and shoulders, but it is very thick, massy, and doughy-like at its lower parts. . . . This monstrous growth of skin, the most voluminous that stands upon record, is simply skin, without the slightest taint of ulceration on any part of its surface, or

the slightest tingling of pain. It is skin, luxuriant, healthy, extremely vascular, with its cellular substance loosened and evolved, so as to give a doughy feeling when the whole tumour is handled. . . .

“When she travels about on her begging excursions she carries her tumour in a sling made of an old tablecloth, as a sower of corn carries the seed in the bag before him. When she sits down, opens her cloak, and unfolds this disgusting and horrible tumour, you can hardly be persuaded that you do not see her belly open and her bowels in motion, for the rolls of skin, fleshy and red, roll over each other as she handles them, and the slightest handling at one fold of the tumour puts the whole into this vermicular kind of motion. The whole volume would roll over her knees but that she contains it in her lap by putting one or both her arms round it.”

Two Cases of Abnormal Development of the Scalp. By JOHN J. COWAN, M.B., C.M., Assistant Medical Officer, Roxburgh District Asylum, Melrose. (With Plate.)

(By Permission of Dr. J. Carlyle Johnstone.)

The two cases here noted and illustrated were referred to by Dr. McDowall, Morpeth, in his communication to this Journal of 1st January, 1893. One of the cases shows considerable resemblance to his.

CASE I.—P. G., aged 39 years, was admitted into this asylum a year ago. He is a genetous and paralytic idiot. There is no direct hereditary predisposition to insanity; but his mother and brothers are distinctly neurotic.

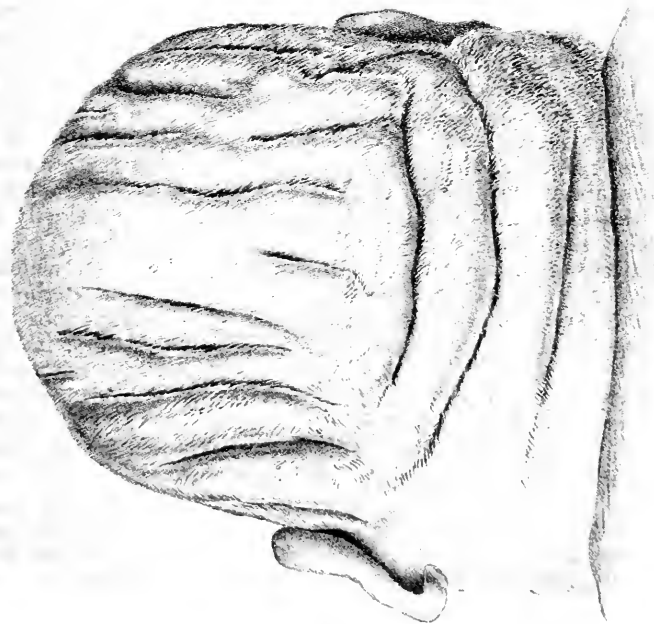
The patient is an enormously stout, broad-shouldered man. He measures 50 inches round the chest, 14 inches round the arm over the biceps (at rest), 19 inches round the mid-thigh, and 12 inches round the calf, which is atrophied and wasted. His weight is 16 stone 5½ lbs. He has never been able to walk, as he suffers from congenital double talipes egrino-varus. His mode of locomotion, when he is called upon to use it, is dragging himself along on his knees by means of his large and powerful arms. Estimating his height it should be over 6ft. (his brothers, one of whom is younger than him, are very tall and stout). His cranial development is notably small in proportion to his face and body generally; fore-

head sloping,* cranium oxycephalic. He is not, however, microcephalic. The cranial measurements are given later along with those of Case II. He suffers from alternating squint. The palate is broad and rather highly arched, teeth not crowded, fairly healthy and regular. His body organs are healthy, save that the circulation is weak, chiefly owing to his corpulence. In his movements he is clumsy and awkward; he has the paralysis above named, the legs being wasted and feet deformed; but there is no arrested development. The sense of touch and hearing are fairly acute, but sight, taste, and smell are sluggish. Superficial reflexes are exaggerated; knee-jerks much dulled.

On looking at the scalp one notices at once that it is abnormally lax and redundant, and can even be plucked up; its surface is irregular and furrowed. The hair generally is thin and fine; in the furrows, however, it grows quite thickly; on the crown of the head the hair is scanty and the scalp becomes smoother, the furrows being more shallow. The furrows are thirteen in number, ten of which run antero-posteriorly; these are roughly symmetrical, there being five on each side. The remaining three are transverse in direction and situated at the back of the head. The two central antero-posterior furrows commence three inches above the external occipital protuberance, and run forwards, that on the left side for $1\frac{1}{4}$ inches, and that on the right side for five inches, becoming more shallow as it nears the forehead. On either side of these central furrows, at intervals varying from $1\frac{1}{4}$ in. to $\frac{3}{4}$ in., run the other four antero-posterior furrows; these are more curved in shape and more irregular, and reach farther anteriorly. In length they vary from $2\frac{1}{4}$ in. to $4\frac{5}{8}$ in. The depth of the furrows varies from $\frac{1}{8}$ in. to $\frac{1}{4}$ in. There is also a short and shallow furrow about $1\frac{1}{4}$ in. long, running back from the junction of the skin of the forehead with the hairy scalp on either side to the inner side of and behind the ill-marked frontal eminences. This furrow runs in between the diverging second and third furrows. On the left side of the head the antero-posterior furrows are markedly more shallow and ill-defined, the scalp being less redundant.

In the occipital region run the transverse furrows, which are long and deep, and quite unaffected by the position of the head, even if craned forwards. Beginning at the uppermost, they measure in length, respectively, $3\frac{3}{4}$ in., $6\frac{1}{2}$ in., and 3 in.; in depth, $\frac{1}{4}$ in., $\frac{3}{8}$ in., and $\frac{1}{8}$ in. The highest runs transversely, with a slight inclination upwards on the right side at a level of $1\frac{3}{4}$ in. above the external occipital protuberance; the other two run $1\frac{1}{4}$ in. and 2 in. below this. The two upper ones are deepest and best marked on the right side. Beyond rendering the furrows slightly more

* His profile resembles remarkably that of Antonia Grandoni, a microcephalic idiot portrayed in Dr. Ireland's book "Idiocy and Imbecility," p. 104, with the exceptions that his forehead slopes rather more and the scalp is furrowed. See also "Dict. of Psych.-Med." Art. "Microcephaly."



CASE I. P.G.



CASE II. J.M.

prominent, the occipito-frontalis muscle has no action on them. Electricity gives negative results.

Mentally, P. G. has about the same amount of intelligence as a child who has just begun to speak. He is very observant of all that goes on round him. The voice is high pitched and babyish. The slightest trifle amuses him and makes him chuckle, crow, and swing himself to and fro in his chair with delight, and he calls to his friends to share his amusement. He has many childish ways, *e.g.*, hangs out his tongue when performing actions which to him are difficult, but he also has a way of letting it hang out as if it were more comfortable out than in. He puckers and contorts his face; is fond of babyish tricks, such as making noises with his mouth; is very imitative and often parrotlike; he repeats words and phrases (usually acquiring those least desirable) without knowing their meaning. Owing to his imitativeness, his tone of voice has altered considerably since his admission, and resembles in certain words that of his attendants or fellow patients. His articulation is badly performed; notably, he avoids all labials, *e.g.*, "henry" for "penny"; his vocabulary is limited to the names of a few familiar animals and a few simple adjectives and expletives and objects. Like a child also, he has words of his own construction to express objects or actions. He exhibits great motor restlessness, is always doing something, chattering, singing, pretending to read, playing with his toy fiddle, making remarks on what he sees; by way of amusement also, he has a habit of grinding his teeth. As a rule he is in the best of tempers and spirits, but now and again, on being teased, in a moment he gets very angry and tries to strike, or spits. Once, when in a rage, he threw a hatchet at some children (formerly he used to chop sticks). He has a notion of right and wrong. In habits he is clean and tidy, and able to indicate his wants. Since his admission he has shown educability and has considerably added to his vocabulary and general knowledge.

CASE II.—J. M., aged 41 years, was admitted 12 years ago. His mother was insane, and a patient here for a short time. No other particulars known about him. This patient also is a genetous and paralytic idiot, but of a much more degraded type. He suffers from paralysis of the right arm and withering of the forearm and hand, with wrist drop; the right leg is weaker than the left, and drags slightly in walking; the feet are ill-formed, broad, and shortened antero-posteriorly. His cranial development is small, but not so visibly out of proportion to the features and rest of the body as in P. G.; cranium is round and bullet-shaped; features coarse and irregular; palate narrow and highly arched; teeth badly formed and rather crowded; lips thick, coarse, and everted, allowing the saliva to dribble out. He has a squint of the right eye due to a corneal opacity following an injury. He has a considerable stoop in the shoulders; if straight, would be about

5ft. 6in. in height. His weight is 10st. $9\frac{1}{2}$ lbs. Chest ill-formed, owing to stoop; circulation feeble. Motion is sluggish, gait clumsy and shuffling. Sense of touch is acute, but the other senses are dull. Superficial reflex action is exaggerated, especially on the right side; knee-jerks exaggerated on right side.

The hair is very thick generally, but is thinner over the crown of the head, where the scalp is less furrowed. The scalp is not so lax and mobile as in Case I., but still is abnormally so. The furrows, which in their situation and disposition resemble Case I. remarkably, run both antero-posteriorly and transversely; but they are more crooked and irregular, and their continuity is interrupted in places. The antero-posterior furrows are thirteen in number, six on each side, which are roughly symmetrical, and a short one on the left side. The two central antero-posterior furrows commence about the same site as in Case I., but are more equal in length, and extend forwards to near the forehead; they are more wavy in the outline and more shallow over the crown. On either side of these are the other furrows, varying in length from 4-8in., disposed much as in P. G.'s case. The average depth of the furrows is somewhat less than in Case I. There are two transverse furrows in the occipital region, both best developed, and deeper on the right side. The upper commences in a curious depression, $\frac{3}{8}$ in. deep, about $1\frac{1}{2}$ in. above the exterior occipital protuberance; it seems to penetrate through the bone partly. The furrow runs downwards to the left, its continuity being interrupted for about $1\frac{1}{4}$ in.; on the right side it runs down for $2\frac{1}{4}$ in. to within $3\frac{1}{4}$ in. of the right mastoid process. The lower transverse furrow runs $1\frac{1}{2}$ in. below the upper for a length of $2\frac{3}{4}$ in., two-thirds of it being on the right side. This furrow is much shallower than the upper one. The occipito-frontalis muscle is extremely well developed, and is constantly in use, but has no action in either obliterating or deepening the folds. On tickling the skin of the neck behind, the two central pairs of furrows were seen distinctly to be drawn together and deepened. This movement was probably involuntary, for it has only been obtained twice and at considerable intervals; one cannot obtain it at will nor with electricity.

This patient mentally is quite idiotic, and has very little intelligence. He only knows his attendants; pays no attention to anyone or anything save his food, which he eats like an animal; is quite harmless, inoffensive, and stupid; but is irritable, and resents interference, especially from strangers. He speaks in a half-articulate mumbling manner; his vocabulary is practically limited to his own name and two foul words which he has picked up. When pleased and happy he bursts into guffaws of idiotic laughter; or he howls by way of agony. As in P. G., there is considerable motor restlessness, and he is never at rest save when asleep. He requires to have everything done for him save feed-

ing, and in habits is dirty; is addicted to masturbation. Although he has been here a long time, and many attempts have been made to educate him in habits, etc., he has not responded to the efforts made, and remains the helpless, degraded idiot he was on admission.

Cranial Measurements.								P. G.	J. M.
								inches.	inches.
Circumference	...	...	...	...	...	...	...	21 $\frac{1}{2}$	21
From root of nose to occipital protuberance, over vertex								11 $\frac{7}{16}$	11 $\frac{3}{4}$
do.	do.			do.,	on right side	...	...	10 $\frac{1}{2}$	10 $\frac{1}{2}$
do.	do.			do.,	on left side	...	...	10 $\frac{1}{2}$	10 $\frac{1}{2}$
do.	do.			do.,	calliper	...	...	7 $\frac{3}{16}$	7 $\frac{3}{16}$
From ear to ear, over vertex								11	10 $\frac{1}{2}$
do.	do.,	calliper	...	...	...	...	...	5 $\frac{1}{2}$	5 $\frac{5}{16}$

On the Possible Use of Sulphonal as a Means of Inducing Insane Patients who Refuse Food to Eat Voluntarily. By Dr. BROUGH, LL.B., L.R.C.P.Ed., etc., Assistant Physician, Argyle and Bute Asylum, Lochgilphead.

It is unnecessary to remind those to whom the practical care and management of the insane are entrusted how disagreeable and painful it is, not merely to the patient, but also to the operator, to be obliged to resort to forcible feeding, and any safe drug which will obviate to any extent this necessity will be welcomed.

As our experience in this asylum during the past six months has led us to believe that sulphonal may, at all events in some cases, have the desired effect, I have considered myself justified in communicating this paper, and by the kind permission of Dr. John Cameron, Medical Superintendent, I send notes of our cases.

During the period mentioned, only five of the 400 patients in this asylum have actually required to be fed forcibly, and in each of these cases the use of sulphonal has been followed by voluntary eating on the part of the patient. It is at present premature to say that the sulphonal was the cause of

the resumption of voluntary eating, and we can only point to the fact that after it had been administered each patient began to take food of his own accord, the sudden change of demeanour being very striking in the persistent and intractable cases referred to.

No markedly evil effects have been recorded as following the use of sulphonal for long periods, and even if some detriment may result from its long-continued administration nothing yet known suggests that this is likely to exceed the admitted evils of forcible feeding, especially when the liability to septic pneumonia is borne in mind.

This letter is written merely in the hope that those who have more extensive opportunities of observation will give the drug a fair trial in cases of this class.

It would not be proper to go into the cases at length, and so I merely send notes indicating their nature, and shall be happy to give more detailed information to anyone who may desire it.

CASE I.—D. B., male, aged 38. Melancholia with strong suicidal tendencies. Patient, a very respectable man, who bore an excellent character, thinks that he has offended the Almighty beyond forgiveness, and has always given as a reason for refusing food that he is "a devil in wickedness, and that as such he has no right to eat, and that he only further offends and defies God by so doing." Patient was admitted in August, 1892. On 27th November he refused food, and had to be fed with the stomach pump. Forcible feeding twice a day had to be continued until 21st December. On the evening of 20th December, the patient having been sleepless and restless, 50 grs. sulphonal were given. On 21st he was quiet and somewhat sleepy, but towards evening he took some tea and toast voluntarily. On 22nd the effects of the sulphonal had apparently worn off. He refused to take breakfast, but at mid-day, after much persuasion, he was induced to take an egg, some meat, and toast. He refused positively to eat anything that evening, and on the following day forcible feeding had to be resumed, and was continued regularly until 31st December. On 30th, owing to sleeplessness and excitement, 40 grs. sulphonal had been given. On the morning of 31st he had to be fed by the pump, but he voluntarily took dinner and tea. The use of sulphonal was continued all through January, the patient continuing to take his food regularly of his own accord during the time. On the 31st January, however, the drug was discontinued, as the patient had become somewhat somnolent and lethargic. On 7th February forcible feeding had again to be resorted to, the patient refusing food and having been very irregular in his eating for two or three days, sometimes missing one meal altogether, and at other times taking an insufficient quantity. From this time forcible

feeding with the pump was continued regularly twice a day until 25th February. On 26th February, although the patient was not showing excitement and was not sleepless, it was considered desirable, in view of what we had seen in this and other cases, to try the effect of sulphonal on the refusal to eat, and accordingly 40 grs. were given at bed time, and 40 grs. more on the morning of 26th. Patient on that day ate his dinner of his own accord, and has continued to take his food voluntarily ever since; sulphonal, in doses varying from 30 to 40 grs., according to his state, being given every morning two hours before breakfast. This quantity of sulphonal does not cause sleep during the day.

CASE II.—J. McA., male, aged 46; admitted October, 1891. Melancholia with marked suicidal tendencies. From the time of his admission this patient declined food, and had to be fed by the stomach pump almost continuously. He would, for instance, have to be fed forcibly for ten days or so, then he would take food voluntarily for a day or two, and then forcible feeding would have to be resumed again, and so on. The alleged cause of refusal to eat was that all food given him "contained filth." Patient, who was then being forcibly fed, was owing to excitement and sleeplessness given 40 grs. sulphonal on 25th January last, and a like dose on the morning of 26th January. On the evening of the latter day he took his tea voluntarily. Sulphonal was continued daily until 2nd February, and patient during that time and until 4th February continued to take his food regularly. On the last-named day he again refused to take food, and forcible feeding had to be resumed, and was continued until 12th February. On the morning of that day 40 grs. of sulphonal had been given, and in the evening he took his tea. Sulphonal, in doses of about 30 grains, has been given him daily ever since, and the patient has ever since continued to take his food voluntarily.

CASE III.—C. McE., female, aged 50. Melancholia with very strong and most persistent suicidal tendencies. This patient had made several very determined attempts to destroy herself, and believes that she on one occasion succeeded in so doing, and that she is now in hell undergoing torment. As she was very restless and excited, sulphonal had been administered to her daily for some considerable time in doses varying from 15 to 26 grs. During the months December, January, February, and March the administration of the drug was stopped for a period of a few days on five different occasions, the patient having shown cataleptiform signs and some stupor. On each of these five occasions, after the drug had been stopped for a day or two, the patient refused her food, and forcible feeding with a spoon had to be resorted to, but as soon as the administration of the drug was resumed, she again, in a day or two, on each occasion, began to eat voluntarily, and continued to do so until the drug had been again stopped.

CASE IV.—A. McL., male, aged 69. Melancholia. Always thinks that he is about to be tortured by someone, and also that

his soul will be eternally lost unless he can secure the "Book of Life," for which he is constantly searching. Doubtful whether suicidal. Refused food in February, and was forcibly fed with the stomach pump for two days. On the morning of the second day 50 grs. of sulphonal were given, and he took his tea in the evening. The sulphonal was continued for some days, and the patient continued to eat. On a subsequent occasion in March he became disinclined to take food, but by persuasion he was induced to take a small quantity. Sulphonal in 50 gr. doses was given as soon as the disinclination appeared, and this passed off on the following day, the patient voluntarily eating with apparently good appetite. The drug was continued for several days.

CASE V.—N. S., male, aged 26. Melancholia with hallucinations of hearing. Hears voices telling him "to be good," and to "do penance by not eating." This patient had to be forcibly fed for three days in February and for two days in March. On each occasion sulphonal in 50 gr. doses was given, and on the day following its administration the patient resumed voluntary eating. The sulphonal in diminished doses was continued on each occasion for several days after the patient had commenced to eat.

The last two cases do not prove much, for the refusal to take food had not been long continued and persistent as in the other cases, and might have ceased apart from the use of the drug, but so far as they go they tend to confirm the other cases.

Two Cases of Pachymeningitis Hæmorrhagica Interna. By
HUBERT C. BRISTOWE, M.D.Lond., Second Assistant
Medical Officer, Somerset and Bath County Asylum,
Wells.

Through the kindness of Dr. Wade, I am permitted to publish two cases of pachymeningitis hæmorrhagica interna which recently died in the Somerset and Bath Asylum. The first case was of a fairly common type, whereas the second presented some very unusual appearances. Both seem worthy of record, and suggest the question—Were they due to hæmorrhage?

The patients were men past the prime of life, who suffered from the usual symptoms of general paralysis. The duration of the first case was about one year; that of the second four or five years. I regret that I saw neither case in its earlier stages, and also that in neither was a complete history to be obtained.

CASE I.—T. J., æt. 44, married, labourer. Admitted December

15th, 1891. His father died in the asylum. One brother also was insane. He had never been a man of much mental capacity, but in that respect had been up to the average of a Somerset labourer. No cause could be assigned for his illness. No history of injury.

State on Admission.—Well nourished; right pupil larger than left, both acting sluggishly. Tongue tremulous; knee jerks exaggerated; speech hesitating and slurred. Expression dull and fatuous. He was in a state of dementia, had no idea of time or place; was very emotional, crying or laughing at the least thing; expressed himself as feeling exceedingly well, and was dirty in habits. He continued in much the same condition until July 25th, 1892, when he had an epileptiform seizure, from which he rapidly recovered. Shortly afterwards he became so weak that it was found necessary to keep him in bed. On August 18th, at midday, he had another fit, in which the right arm and leg were quite flaccid, but after a short time they became extended and rigid. The knee jerks were much exaggerated, and ankle clonus was present in both legs, but more marked in the right. He apparently lost consciousness. The temperature rose slightly. At 9.30 p.m., another fit, attended with convulsions, carried him off.

The post-mortem examination was made 30 hours after death. The calvaria was healthy, and the dura mater not adherent to it. When the skull cap was removed the dura appeared to be tense and of a dark colour. It was incised, and carefully peeled off from the substance beneath, to which it was adherent. The only portion of brain covered by the pia mater then visible was the median area. Surrounding this area was a dark horseshoe-shaped sac of false membranes, which was adherent to the pia mater. The convexity of the horseshoe pointed forwards. The sac wall was formed of tough fibrous tissue, and the cavity contained blood which was fluid, with the exception of one or two small recent clots. The brain substance was compressed and flattened on each side by the sac, but more so on the right than on the left. Laterally and in front the sac extended to the base of the skull, but did not encroach on the under surface of the brain. Behind it reached as far as the tentorium cerebelli.

On removing the sac the pia mater was found to be opaque, but not oedematous, and thickened, especially over the frontal lobes, where it was as thick as the dura mater itself. An unusual number of Pacchionian bodies were present. The membranes were adherent to the brain substance. The ventricles were of normal size, but their floors were roughened. No naked-eye lesion was detected in the brain substance.

The false membranes were examined microscopically with great care, and portions were embedded in celloidin before manipulation. They were found to vary in thickness from 1.3 to 0.5 mm., and were composed of fully-formed fibrous tissue. No trace of epithelium could be found on any portion of it. The fibrous tissue was vascular. Fibrous processes which passed from the pia mater to

the false membranes were found to contain arteries and veins. There were no signs of old clotting, and no crystals of hæmatoidin could be found. In fact, everything pointed to the hæmorrhage being recent. The sac walls were scarcely blood-stained. The surface of the pia mater was destitute of epithelium. Nothing unusual was found in the brain substance or cord. The arteries at the base of the brain were slightly atheromatous. All the other organs of the body were healthy, except the kidneys, which were slightly granular.

CASE II.—J. K., æt. 53, clerk, single. Admitted January 7th, 1892. No family history of insanity or other hereditary disease. Had never had any serious illness. During the preceding four or five years had been becoming queer in the head and had been compelled to give up work.

State on Admission.—A well-nourished man; tongue furred and tremulous; right pupil larger than left, and both sluggish in action; expression vacant and dull; seldom speaking, and appearing not to understand what was said to him; resisting examination in a passive manner; noisy and restless at night, and exercising no control over his emunctories. By May 23rd he had apparently improved; his ideas were exalted, and the state of *bien être* was well-marked; his knee jerks were exaggerated; on attempting to sign his name he made the first letter clear but shaky, the rest was unintelligible. His eyes were examined by the ophthalmoscope, and the fundi found to be quite healthy. He continued in much the same condition until the beginning of August, when he had to be confined to bed. He then had clonic spasms of the left arm; knee jerks could not be obtained. On August 16th he was noted to be weaker; superficial reflexes could not be obtained; he did not seem to appreciate a pin prick on any part of his body; temperature rose to 100° at night and became normal in the morning. He died on September 1st, having gradually become comatose.

The post-mortem examination was made 31 hours after death. Calvaria healthy and dura mater not adherent to it. On removing the skull cap, the dura was seen to be tense and dark. It was adherent to the substance beneath, and had to be stripped off. Beneath it on either side was found a sac of false membranes. The two sacs were quite separate, and were of similar shape and extent. In front they were adherent to the roof of the orbit, and then completely covering the frontal lobes, passed backwards, and covered the parietal and occipital lobes, as in the other case, and left the parts adjoining the great longitudinal fissure uncovered. They were slightly adherent to the pia mater. The brain was compressed by them, especially on the left side.

The sac on the left side, as in the other case, contained fluid blood, with one or two recent clots in it. The right sac, however, was far less tense, and contained only a few drachms of colourless serum. The false membranes on this side were very thin and

semi-transparent. The pia mater was thickened and opaque, but not œdematous, and was adherent to the brain substance. There was an unusual number of Pacchionian bodies. The brain substance was generally infected. The vessels at the base were slightly atheromatous.

The false membranes were examined microscopically with the same precautions as in the other case. The right sac wall was composed of completely formed fibrous tissue, which was only slightly vascular. There was no trace of epithelium or blood. The left sac wall was more vascular, was blood-stained, and contained no trace of blood-clot or hæmatoidin crystals. In this case there were no large vessels leading from the pia mater. The surface of the pia mater was destitute of epithelium. With the exception of excess of fibrous tissue in the grey matter and roughening of the floor of the 4th ventricle, nothing further abnormal was detected in the brain or cord. All other organs of the body were healthy.

The view that this condition is due to a compensatory hæmorrhage after shrinkage of the brain substance has been fully discussed by Dr. Wigglesworth. More recently Dr. G. Robertson has suggested that inflammation is probably the commencement, and hæmorrhage, with organization of clot, the continuation. It is neither my wish nor intention to discuss these views. All I ask is—Can these two cases be satisfactorily explained by any hæmorrhagic theory?

In the first case there was but one membranous sac which contained fluid blood, but no signs of organized clot, unless the sac itself consisted of it. At the same time, we must admit that the appearances, both naked-eye and microscopic, were quite compatible with the results of old standing inflammation.

In the second case there were two membranous sacs—that on the left contained fluid blood, and that on the right only clear serum. The right sac wall was thinner than the left, and presented no appearance of ever having come into contact with effused blood. Of course, it may be maintained that the colourless sac was a decolourized sac, and that it originally resulted from hæmorrhage. In answer to this, I ask—Why was the sac wall so thin and delicate in comparison with the sac containing blood? Why, if it was due to old hæmorrhage, was it a sac at all? Why did it contain only clear serum? And how was it that all traces of blood had disappeared?

Both cases were clinically cases of general paralysis, and presented no peculiarities until the time of death, when the

symptoms in each were compatible with those of cerebral compression, and I believe the immediate cause of death was hæmorrhage into the sac in both cases. Surely the amount of hæmorrhage sufficient to form false membranes was sufficient not only to cause immediate symptoms, but, in all probability, immediate death.

I would suggest that the appearance presented in these two cases are as much the appearances of old inflammation as of hæmorrhage; and, further, it is exceedingly difficult to account for the conditions found in the second case by any theory of hæmorrhage.

OCCASIONAL NOTES OF THE QUARTER.

The Annual Meeting.

The characteristic feature of this year's annual meeting was the large amount of business arising out of the reports of Committees appointed the year before. The most important of these had reference to the proposed new rules of the Association. Much labour and time had been expended upon their revision, and it was hoped by many that they would be adopted. As, however, some members had not received their proofs of the rules till within a short period of the meeting, it was decided to postpone the consideration of their adoption until the date of the quarterly meeting in November. A resolution was passed on an important subject—the extension of the sittings of the annual meetings from one to two or three days. We are glad to be able to record this, for although the meeting was not prepared to make this course compulsory, but permissive, there can be no doubt that this permission will be acted upon, and that when once the proposed plan is adopted it will become a permanent institution. Papers on medical psychology will be read and discussed, and we may hope that the result will be the advancement of knowledge in our special department. It is very doubtful that the Journal will be able to find room for the articles, in addition to those which are prepared or are read at the quarterly meetings of the Association in Great Britain and Ireland. It may be that a separate volume of annual transactions may be rendered necessary. Among other subjects discussed, the question of the admission of lady doctors as members led to an animated debate, and

although the general wish was in favour of this innovation, it was found that the existing rules did not permit it. The decision had, therefore, to be postponed until the existing rule is modified.

The President's Address was the eminently practical one which was to be expected from so experienced and successful a medical superintendent. Dr. Murray Lindsay passed in review the most important subjects now or recently uppermost in the minds of the members of the Association. Giving full credit to the work it has already done, he contended that it had yet much to do, and must be more self-assertive in the eyes of the public if it wished to fulfil its mission effectively. In fact, the whole tone of the address had a distinctly Radical ring about it, which always sounds better, and comes with more weight from a man growing grey in asylum service than from the youthful critic.

We cannot say in this instance with Lord Bacon that "men of age adventure too little," however true it may be that "young men in the conduct and management of actions embrace more than they can hold, stir more than they quiet, and fly to the end without consideration of the means and degrees." Speaking of the new Lunacy Act the President observes (and we are sure that no member of the Association acquainted with its working will consider this criticism too harsh), "I am not enabled to look back upon it with more favour than at first. Each year's experience of it only leads me to join in the general condemnation of it by asylum medical officers as in many respects a piece of hasty, vexatious, and ill-judged legislation, not only attended with little or no benefit to the insane poor, but depriving them, to a considerable extent, of the attention of the medical officers whose time is now largely taken up with increased clerical and reporting work in order to satisfy the requirements of an unnecessarily exacting, complicated, and confusing Act, the chief redeeming feature of which is the consolidation of various previous enactments." Dr. Lindsay might have added that some of the clauses are so ill-expressed as to appear to mean precisely the opposite of what the lawyers, who are consulted by the Commissioners in Lunacy, decide to have been the meaning of those who framed them. Most truly does the President say in his scathing condemnation of this unhappy attempt of the lawyers to legislate on a subject of which they have no practical knowledge, that it converts the asylum staff into "recording and certifying machines, a considerable portion of their time

being now frittered away in writing useless reports, signing certificates, and other clerical work." At a quarterly meeting of the Association, held at Bethlem Hospital soon after the Act came into operation, Dr. Percy Smith vigorously attacked it, and showed by actual examples the annoyance and injury it occasioned. It is greatly to be regretted that no practical action has been taken by the Association since the passing of the Act to redouble its opposition to the objectionable clauses it contains. That the medical superintendents of asylums should tamely submit to the yoke which has been put upon them may be creditable to their forbearance and law-abiding qualities, but manifests a want of spirit which can hardly secure the respect of our legislators. Rather may they interpret it as pusillanimity. The Address at Buxton may be taken as an indication and a promise that, under the presidency of its author, the Association will show its hand and succeed in mitigating, if not in altogether removing, an intolerable burden upon all who are engaged, whether in or out of asylums, in lunacy practice.

Dr. Lindsay regrets that the Lord Chancellor has not amalgamated the two Lunacy Departments as provided in Section 327, which empowers him to effect it, and he enforces the necessity of an increase in the number of Medical Commissioners. "One legal member on the Lunacy Commission would probably be found quite sufficient for all necessary purposes for advising the Board Indeed, I see no need of and no advantage whatever in the visitation of asylums by barristers, who are not supposed to be competent to express opinions on medical matters, and who would be the first to resent intervention by medical men in their legal affairs."

The great importance of the establishment of County Councils has naturally led to the consideration of their success or otherwise by the President, not only of our Association, but of the Psychology Section of the British Medical Association this year. It is highly gratifying to know that their united verdict is distinctly in their favour. After all the gloomy forebodings as to the terrible injury they would inflict upon the administration of the county asylums of England and Wales, it is a relief to find that Dr. Murray Lindsay and Dr. McDowall, after ascertaining the experience of other superintendents, are able to unite with them in regarding the change as salutary, there being, "on the whole, every reason to be satisfied with the progress

made, and with their administration of county asylums, which will eventually derive greater benefit under their régime, for, fortunately, there can be little doubt that more money has of late years been spent upon asylums than for years previously." Dr. Lindsay points to the London County Council as in the front rank in these respects. The whole Address is in the hands of our readers, and we refer them to it rather than dwell further upon its references to the topics of the day in the realm of psychological medicine. We cannot conclude this brief notice of its salient points without remarking that its delivery was followed by some excellent observations by the President-Elect, Dr. Conolly Norman.

Classes for "Special Instruction" in connection with the London School Board.

We are glad to find that the classes instituted by the London School Board for the special instruction of children incapable, by reason of physical or mental infirmity, of being taught in the ordinary elementary day school, are making good progress under the superintendence of Mrs. Burgwin. From her report for the year ending March, 1893, we learn that 265 such children had been under special instruction at six centres, these having been opened in July, 1892, in poor and populous districts of the metropolis. The pupils have as a rule been selected from those attending the ordinary schools, upon the recommendation of head teachers, with the approval of the Medical Officer to the Board and the Superintendent of Special Instruction. More centres are in contemplation; indeed, it is hoped ultimately to provide "special classes" at convenient distances throughout the metropolitan area. From a personal visit to two of these centres, in Clerkenwell and St. Luke's respectively, we are able to speak very favourably of the methods of instruction, and of the results so far as they could be gathered from the first nine months' experience. To deal successfully with groups of children more or less abnormal demands, of course, a comparatively large teaching staff, and we are glad to find that the ratio of teachers to pupils is about 1 to 30. Considering that individual study of each pupil's peculiarity is called for, even a larger ratio of teachers would be justified. The system of teaching adopted follows somewhat on the lines of that found serviceable in institutions for imbeciles; sense culture, manual training, and

above all, the development, by enticing methods, of the faculty of attention, forming important items. Lessons are brief and of a practical character, and the afternoons are devoted chiefly to manual occupations, such as modelling in clay, weaving in papers and cane, macramé work and needlework, "great care being taken that these occupations shall not develop into a mere mechanical process, but each have a definite object to be reached. "Lessons in articulation and gymnastic exercises are of frequent occurrence." We did not see any evidence of "*musical drill*," but considering the beneficial influence music has, specially upon this class of minds, we venture to think that the provision of pianos in connection with these special classes would not be an unpardonable extravagance.

Mrs. Burgwin states that "some of the pupils after the Government examination will be able to return to the ordinary day school, whilst others will have to be excluded from the classes, having proved themselves incapable of making progress in any branch of work. These can only be classed as imbeciles."

We are glad to be able to congratulate the London School Board on the progress made in this work of special instruction of exceptional children, the importance of which the readers of this Journal will remember we drew attention to in January and April 1888. (See "Occasional Notes," Vol. xxxiii., p. 552; Vol. xxxiv., p. 80).

We learn from the report of Mrs. Burgwin that the six centres already mentioned are in the following localities:—

			On Roll.		
			B.	G.	
Chelsea Division,	Park Walk	...	8	6	with 1 teacher
Finsbury	„ The Hugh Myddleton	28	24	„	2 teachers
Finsbury	„ Bath Street	...	38	31	„ 2 teachers
Hackney	„ Summerford Street	...	17	11	„ 1 teacher
Lambeth	„ East Street	...	24	13	„ 1 teacher
Southwark	„ Pocock Street	...	38	27	„ 2 teachers
			—	—	—
			153	112	9

She states that "many of the scholars are untruthful, in fact seem utterly devoid of conscience, and a great deal of time is spent in inculcating the virtue of truth and honesty in word and deed. Whilst a few are gentle (often through feebleness) many are very spiteful, and discipline is a source of much anxiety to me. Over-indulgence by the parents, who think they are thus showing their love to their afflicted offspring, is at times accompanied by very rough treatment when a boy is just past bearing with, and this method of treat-

ment makes the power of controlling them a very difficult matter indeed."

With regard to the subjects taught, it is stated that the "Morning Session" is devoted to Scripture teaching, the three R.'s, drawing, with play, singing, gymnastic exercises, each lesson occupying about twenty minutes. In the afternoon the children are employed in the way already stated.

"Articulation lessons are given daily, and, though apparently a very slow process, yet the reading of many bears evidence of the good resulting therefrom."

Crime and Punishment.

When Pantagruel arrived at Myrelingues he found that Judge Bridoye, after carefully considering all the circumstances of a case, was accustomed to decide it by the dice. The results produced by the application of this singular method of administering justice, although, doubtless, sufficiently remarkable, could hardly be more contradictory and perplexing than the sentences which at the present day are inflicted upon criminals in England. "Day by day," says Mr. Justice Hawkins (who, in conjunction with Mr. Poland and Mr. Hopwood, discusses the question of "Crime and Punishment" in the current number of the *New Review*), "attention is called to some inequality of sentence so glaring that one falls to wondering how such things can be. For a cruel and violent injury inflicted on the person, perhaps, of a woman or child, a comparatively nominal punishment is awarded, while a trifling act of dishonesty is visited with extreme and merciless severity. Nor are sentences," the learned judge proceeds to observe, "imposed by different Courts for offences of the same kind congruous among themselves. For a trifling act of theft one Court will assign a few weeks' imprisonment as sufficient expiation, another under similar circumstances will assign a term of penal servitude." In spite of the complacency with which Pantagruel regarded the combined humility, piety, and impartiality of the "Bridoye" judicial method, we agree with Sir Henry Hawkins that the continued working of its English analogy is highly detrimental to the interests of justice. It is by no means a simple matter, however, to find a satisfactory remedy for the evil. The Council of Judges recommended the establishment of a Court of Criminal Appeal, and a considerable section of legal and

public opinion declared itself in favour of this recommendation; but the time of Parliament is too fully occupied with contentious party measures to permit a Bill for the constitution of a Court of Criminal Review to come at present within the range of practical legislation, and the opinions of the minority of lawyers and laymen who dissent from the proposal are both too pronounced and too forcible in themselves to render its speedy enactment probable, even if the Legislature had been in a position to entertain it. It becomes necessary, therefore, to cast about for some remedy capable of immediate application, and to the discovery of such a specific each member of the legal triumvirate to which we have referred devotes himself. Mr. Hopwood's contribution to the inquiry is of little value. We have the old statistics to show the marvellous efficiency of the short-sentence system as administered by the present Recorder of Liverpool, the old hardy and unproved assertions as to the failure of any rival mode of dealing with crime, and the old farrago of fallacies and washy sentimentalism with which students of Mr. Hopwood's dialectical methods have long been familiar. Mr. Poland, whose eminence as a criminal lawyer qualifies him in a peculiar degree for expressing an opinion upon the subject in question, raises the argument to a far higher level; he concludes that the present system cannot be altered with advantage, except, perhaps, by a return to the practice which prevailed at the Central Criminal Court till about 1860 of deputing all the Queen's judges on the rota—generally three, sometimes only two—to sit together on the trial of important cases. This suggestion is an excellent one if the existing staff of common law judges and the exigencies of common law litigious business will permit of its adoption. Its merits are admirably summarized by Mr. Poland in the following terms: "If the case was a capital one the Home Secretary then had two or three advisers instead of one to consult as to carrying out the sentence. Moreover, the judges, by sitting together from time to time, and consulting as to the sentences to be passed session after session at that Court, were enabled when acting separately on circuit to pass sentences which were much of the same character." To the decision of the Home Secretary, informed and fortified by the advice of such a body of judges, Mr. Poland says that he would far rather trust than to the judgment of a Court of Criminal Appeal, and there is not a little to be urged in favour of this declaration. But if the domestic forum of

the Home Office is to be retained, it ought, like other tribunals, to be made subject to the law of publicity, and not merely the fact and the terms of the Home Secretary's decision, but the reasons for it, and, if need be, the expert reports on which it is based, might be disclosed. It is desirable that there should be no repetition in England of the incident which occurred in the case of Laurie, the Arran murderer, who, after having been solemnly convicted and sentenced to death, had his punishment commuted by the Secretary for Scotland on the private report of three distinguished experts giving effect to a plea of insanity which had not been brought forward at the trial. That the Scottish Secretary in that celebrated case, whose *dénouement* gave rise to so much murmuring north of the Tweed, acted with perfect propriety under the circumstances, and that his professional advisers—Dr. Gairdner, Dr. Yellowlees, and, if we remember aright, Sir Arthur Mitchell—came to a correct conclusion as to Laurie's insanity, there is no ground for doubting. But if the Home Office is to discharge regularly and permanently the functions of a Court of Criminal Appeal, and if verdicts and sentences are to be submitted to its revision, the public are entitled to know the grounds on which its judgment proceeds. It is, however, in the paper of Mr. Justice Hawkins that the most original and noteworthy contribution to the settlement of the long or short sentence problem is to be found. Grasping with all his wonted clearness the fact that the inequality of criminal sentences is largely due to the varying conceptions that judges entertain of the objects of punishment, his lordship observes: "One would think that a Commission composed of competent persons (not all lawyers) having knowledge and aptitude for dealing with the subject, would experience no insuperable difficulty in framing such a code (of guiding principles) as would render substantial assistance to those upon whom the duty of inflicting punishment devolves." Whether a Court of Criminal Appeal is or is not to be ultimately established, the appointment of such a Commission as Mr. Justice Hawkins suggests could be productive of nothing but good, and we trust that the learned judge's recommendation will receive the attention which it deserves. Perhaps the scope of the Commissioners' duties might probably be so enlarged as to include an inquiry into the doctrine that all criminal sentences should be of indefinite duration.

THE ASYLUM CHAPLAIN'S COLUMN.

Religion, and its Influence on the Insane.

By the Rev. THOMAS DOWNIE, Chaplain, Royal Edinburgh Asylum, Morningside.

(Abbreviated.)

The principal work of the asylum chaplain is to preach and conduct the other exercises of worship in the institution, and, in his visits among the different wards, present the truths and consolations of religion to such of the inmates as are capable of comprehending them or being influenced by them. This is not, indeed, his whole work. If he is worthy of his position he will ever seek to be the friend of the patients, sympathizing with them in their troubles, talking with them on any matter in which they show an interest, and inviting their attention to such subjects as may divert their thoughts from themselves. But the chaplain must always remember that his distinctive ministerial duties constitute his main work. An idea, I find, prevails largely in the outside world, that religion is one of the prominent causes that lead to insanity. Frequently is the remark made to me by clergymen and others when reference is made to my work in the asylum, *Many of the patients will have had their reason upset by religious influences.* My reply to such an assertion is that, in very rare instances indeed, have I found religion the real cause of insanity. The origin of the widespread idea, to which I have referred, is not difficult to trace. When the brain, which is the organ of the mind, is in a diseased state, all subjects that come under contemplation are presented in a distorted or topsy-turvy aspect. It is therefore not surprising that religion, which appeals so powerfully to the intellectual and emotional part of man's nature, should sometimes be viewed by the insane with feelings of gloom or terror, the reverse of those which it awakens when the mental faculties are in their normal condition. The morose or depressing views which some patients take of religion are, I believe, in the vast majority of cases, the result and not the cause of their insanity.

All whose work calls them to minister to minds diseased know how powerfully the truths and consolations of religion

oftentimes exert a sustaining and enlivening influence on the patients of an asylum for the insane. It is true, indeed, that the mentally afflicted often show an utter indifference to religious subjects or are incapable of taking any interest in them. Some, again, will become rude and insulting in their language at the bare mention of religion in their hearing, and, in such cases, the chaplain will act wisely by guiding the conversation into subjects that have no religious reference. But, in many instances, the truths and comforts of religion are addressed to welcome ears, and often exert a soothing and curative influence. Frequently have patients who had recovered from their illness, and were about to leave the institution, expressed to me their gratitude for the benefit they had derived from the religious services held in it.

As illustrating the impression with which some patients, after they leave the asylum, look back on the religious exercises conducted in it, I may give a short extract from a letter which I received from a gentleman of high intelligence and culture, who had been for some time in the asylum, but had recovered. "I cannot close," he writes, "without expressing the pleasure I had, during my stay at Morningside, especially in the Sabbath services, which were to me like streams in the desert, or rather, I should say, like wells of living water. I am much impressed with the importance of your sphere there, and the noble opportunity of serving the Master in a position requiring much tact and wisdom. I know that not a few there are looking to you for spiritual advice."

I conclude by stating that I consider it most desirable that the religious services connected with an asylum should be conducted in a church or chapel, specially set apart for the purpose, and detached from the other buildings of the institution. When I began my work as chaplain at Morningside, divine worship was conducted in the amusement hall. To this arrangement I often heard the patients object as incongruous. A church was afterwards erected in the grounds, and the result has been most satisfactory. The walk out to church, instead of, as formerly, passing from one compartment to another—the sound of the Sabbath bell, and the sight of the pulpit and pews, all tending to call up the associations of bygone days, have had a quieting influence on the patients, and invariably the utmost decorum pervades the service.

PART II.—REVIEWS.

*The Forty-Seventh Report of the Commissioners in Lunacy,
7th June, 1893.*

The forty-seventh annual Report of the Commissioners in Lunacy yields in no particular to its predecessors in point of statistical interest, while much may be gleaned from its pages of the efficient and careful manner in which the interests of the insane are at the present day safeguarded, and of the conscientious and scrupulous zeal which the heads of asylums, both public and private, show in the performance of their arduous and frequently dangerous duties. The information which last year we had looked for by which an interesting comparison could have been drawn between the number of registered insane and the actual number of existing cases of unsound mind, recorded by the census of 1891, is not yet forthcoming. The number of insane registered on the 1st of January of this year was 89,822, and they were classified and distributed as shown on p. 561.

These figures are of great interest when compared with those of previous years, but they show rather the scope of work attached to the duties of the Commissioners than the actual state of existing and occurring insanity in England and Wales, and for purposes of statistical deduction they are, as we have frequently maintained, apt to be misleading. The public press, and through it the public, leap to the conclusion that such tables take cognizance of every case of mental affection occurring or existing in the kingdom, and alarming inferences are drawn in highly-coloured verbiage expressive of the great increase in insanity year by year, blind to the fact that the increase of cases largely represents the encroaches or raids on the total number of insane in the country. The actual state of lunacy in our midst is misrepresented, and it is unreasonable, apart from other considerations which are generally overlooked, to draw deductions merely from a comparison of tables of successive years. The public believe that because more insane come under official cognizance year by year, the ratio of fresh cases of insanity to the general population is enormously increasing. A comparison of succeeding decennial census returns of existing insanity, contrasted with the Commissioners' tables, is very instructive, but the space at our command will not allow of our pursuing

WHERE MAINTAINED on 1st January, 1893.			PRIVATE.			PAUPER.			CRIMINAL.			TOTAL.		
			M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
In County and Borough Asylums	...	...	432	559	991	25,392	31,051	56,443	59	25	84	25,883	31,635	57,518
In Registered Hospitals	...	...	1,808	1,723	3,531	267	156	423	1	1	2	2,076	1,880	3,956
In Licensed Houses :—														
Metropolitan	...	...	785	840	1,625	419	571	990	...	...	...	1,204	1,411	2,615
Provincial	...	...	586	793	1,379	201	249	450	3	...	3	790	1,042	1,832
In Naval and Military Hospitals	...	...	240	...	240	...	...	...	...	...	...	240	...	240
In Criminal Lunatic Asylum (Broadmoor)	...	...	...	...	...	...	...	...	481	159	640	481	159	640
In Workhouses :—														
Ordinary Workhouses	...	...	...	...	...	4,672	6,185	10,857	...	...	...	4,672	6,185	10,857
Metropolitan District Asylums	...	...	...	...	...	2,893	3,128	6,021	...	...	...	2,893	3,128	6,021
Private Single Patients	...	...	185	249	434	...	...	...	...	...	...	185	249	434
Out-door Paupers	...	...	...	...	...	2,258	3,451	5,709	...	...	...	2,258	3,451	5,709
TOTAL	...	...	4,036	4,164	8,200	36,102	44,791	80,893	544	185	729	40,682	49,140	89,822

the subject further. Taking the statistical tables as representing the number of the insane, so far as official supervision extends, we note that there is an increase for the year of 2,055 (1,146 males and 909 females) among the pauper patients, a total decrease of 73 among the private class, and a decrease of eight among the criminal patients. The net increase of the year in the number of patients under care (1,974) shows a higher ratio of increase than usual, and as the admissions during 1892 were only 445 in excess of those of 1891, this increase has to be explained in some other manner than merely by an increment in the number of occurring cases. In their Report the Commissioners in Lunacy attribute this annual increase in the number of the insane under cognizance mainly to the accumulation of chronic incurable cases in public asylums, and the inference seems, as we pointed out last year, a just one. The number of private patients under official supervision has decreased in all institutions save registered hospitals, where they have increased by five. Pauper patients have increased in county and borough asylums by 2,029, in registered hospitals by 188, in Metropolitan licensed houses by 43, in Metropolitan district asylums for imbeciles by 43, and as outdoor paupers by three, while the decrease affects provincial licensed houses by 188, and workhouses by 102. The large proportionate diminution in provincial licensed houses, and the increase to the same extent in registered hospitals, is due to the registration early last year of the Western Counties Idiot Asylum as an institution under the Idiots' Act instead of being, as heretofore, a licensed house for the reception of idiots.

The statistical tables in this year's Report are, with one exception, the same as last year. In the summary showing the number, classification, and distribution of all reported insane, we find that the average annual increase for the decade 1883-1892 was 1,301. The increase for the past year (1,974) is the largest yet recorded.

The ratio of registered insane in England and Wales to the population reaches the high figure of 30·21 per 10,000. This again is the largest on record, and shows a differential increase of ·33 on the ratio of last year; such differential increase has not been so high since 1888. For the last decade the average ratio was 29·55, that for the previous ten years having been 27·39. The ratio of the number of patients who have been added to the list of those under

official cognizance (admissions into asylums, etc.), to 10,000 of the whole population in England and Wales, estimated for the middle of each year, has increased to 5·73, or an increase of ·09 on that of last year. The increase of course marks the excess of that due to the increase in population. It is not only increase in population which affects this increment; a little consideration will show that relapses and recurrences augment its influence. Allowing for such increase in population, the number of cases of occurring insanity coming under official cognizance should be 16,867, or an increase of 184 on that of last year. The true increase has, however, been 445, or 261 more, a number which could mainly be accounted for by relapses. It will be found that the calculated number due to increase in population year by year compared with the actual number of admissions shows a remarkable variation. In 1884, 1885, and 1888 the actual number of admissions fell below the number calculated on an allowance for increase of population. During the last four years, 1889 to 1892 inclusive, the actual number has been greater than the calculated number by 821, 973, 307, and 261 respectively. By thus investigating one factor only of those which we have hitherto urged should be considered in estimating the actual existence and amount of an increase in insanity, we find that there is a remarkable irregularity. If other factors, such as the number of transfers, were allowed for in these calculations, the number of first admissions per annum (accepting this as an approximation to the actual number of cases of occurring insanity) would be found to bear a nearer ratio to the increase of population. We assume here that what is meant by increase in insanity is that the number of fresh subjects attacked is larger. It must always be remembered that the ratios of admissions to population as set forth in these tables do not give the real state of affairs, because no returns are made of the numbers admitted into workhouses and as outdoor insane paupers during the year. The total numbers in detention alone are given.

The ratio per cent. (10·32) of pauper lunatics, idiots, etc., to paupers of all classes shows a slight diminution on that of last year (10·35), but the total number of paupers to the population has increased to 2·64 again, so that the real diminution, taking into consideration this latter increase, is ·24 per cent. Of the total number of pauper insane under official cognizance we find from another table that 72·03 per

cent. are in asylums, hospitals, and licensed houses, 20·86 per cent. in workhouses, and 7·06 per cent. with relatives and others. During the decade the first of these three has increased by 5·61 per cent., the others having diminished by 3·98 and 1·63 per cent. respectively, the numbers thus balancing accurately. The number of patients under detention in asylums, registered hospitals, etc., on the 1st of January, 1892, was 65,244, an increase of 1,253 on that of last year. The following table shows the increase or diminution under the various forms of care :—

	County and Borough Asylums.	Registered Hospitals.	Metropolitan Licensed Houses.	Provincial Licensed Houses.	Naval and Military Hospitals and Royal India Asylum.	Criminal Asylum (Broadmoor).	Private Single Patients.	Idiot Estab- lishments.	Total.
Increase ...	1,058	44	62	49	—	15	7	40	1,275
Diminution	—	—	—	—	22	—	—	—	22

The total net increase is 1,253.

The admissions during the year (excluding transfers and those readmitted on fresh reception orders, owing to the lapsing of previous reception orders, Sec. 38 of Lunacy Act) show an increase or diminution in the different classes of institutions according to the following table :—

	County and Borough Asylums.	Registered Hospitals.	Metropolitan Licensed Houses.	Provincial Licensed Houses.	Naval and Military Hospitals and Royal India Asylum.	Criminal Asylum (Broadmoor)	Private Single Patients.	Idiot Estab- lishments.	Total.
Increase ...	428	58	—	77	37	—	—	—	600
Diminution	—	—	141	—	—	14	—	36	191

The total net increase is 409.

There is certainly a favourable diminution in the number of fresh reception orders rendered necessary by the expiration of previous reception orders, but it will be a long time before matters work so smoothly as to warrant the withdrawal of a special table. Fresh certificates were needed in 112 instances in county and borough asylums, in 20 cases in

registered hospitals, in 16 in Metropolitan licensed houses, in 35 in provincial licensed houses (14 of these, however, being in one licensed house through a misconstruction of the terms of the Act), and 10 among single patients, making a total of 193, against 353 last year.

The discharges during the year as "recovered" show a diminution of 76, numbering 6,670 as against 6,846 last year. The diminution in county and borough asylums was 147, in Metropolitan licensed houses 49, and in provincial licensed houses 10, while an increase occurred in registered hospitals of 20, in naval and military hospitals of three, and among private single patients of seven. Other discharges, "relieved" or "not improved," and those due to expiry of reception orders, number 4,672. The proportion per cent. of stated recoveries to the admissions fell to 38·94, a number somewhat below the average for the last ten years. It would hardly be fair to deduce from the percentage averages of recoveries to admissions for the last decade the value of the various methods of treatment, as numerous factors would have to be taken into consideration which would tend to minimize the value of the more favourable sets of figures. We, however, append a table of such :—

	County and Borough Asylums.	Registered Hospitals.	Metropolitan Licensed Houses.	Provincial Licensed Houses.	Naval and Military Hospitals.	Criminal Asylum (Broadmoor)	Private Single Patients.
Averages of percentage of recoveries to admissions, 1883-1892.....	39·73	46·93	35·91	36·63	56·28	17·46	14·72

The deaths during the year numbered 6,485, or only one in excess of last year, and a decennial increase of 1,350. The average number of deaths per annum for the decade (1883-1892) was 5,831. Tables similar to those of last year give the percentage proportion of deaths to the daily average number resident and the percentage proportion to the total number under treatment, and a table specifying the death-rates at different ages, and the number at different ages living in all institutions on December 31st, 1891.

The death-rate of the officially recognized insane at various ages, compared with the death-rate among the general population for the same period and at the same ages, furnishes us with the accompanying summary (p. 566).

The death-rate per 1,000 of the reported insane is 101·25, the sane death-rate being 20·25, an improvement on the figures of last year, when the former stood at 102·0 for a sane death-rate of 19·5; the real diminution, allowing for the difference between the two sane death-rates, being 3·67 per 1,000. Besides the evidence which this table offers of the diminishing death-rate in the reported insane and its approximation to the sane death-rate as age advances, accounting thus for the accumulation in asylums of aged

Age Periods.	Death-rate per 1,000 Reported Insane.	Death-rate per 1,000 Sane Population.	Proportion of Deaths, Sane to Insane, Reported.
Under 5 {	—	Males 64·5 Females 53·6 } 59·0	—
5—9 {	Males 44·4 Females 101·1 } 72·7	Males 4·7 Females 4·7 } 4·7	1 to 15·4
10—14 {	Males 45·2 Females 65·0 } 55·1	Males 2·6 Females 2·9 } 2·7	1 to 20·4
15—19 {	Males 55·8 Females 76·1 } 65·9	Males 4·2 Females 4·3 } 4·2	1 to 15·6
20—24 {	Males 82·7 Females 59·1 } 70·9	Males 5·7 Females 5·2 } 5·4	1 to 13·1
25—34 {	Males 81·0 Females 55·4 } 68·2	Males 7·9 Females 7·1 } 7·5	1 to 9·0
35—44 {	Males 117·7 Females 59·7 } 88·7	Males 13·5 Females 11·1 } 12·3	1 to 7·2
45—54 {	Males 109·2 Females 64·8 } 87·0	Males 22·4 Females 17·2 } 19·8	1 to 4·3
55—64 {	Males 134·9 Females 88·5 } 111·7	Males 41·1 Females 33·4 } 37·2	1 to 3·0
65—74 {	Males 228·7 Females 162·9 } 195·8	Males 81·2 Females 70·6 } 75·9	1 to 2·59
75—84 {	Males 403·4 Females 252·1 } 327·7	Males 165·0 Females 148·3 } 158·1	1 to 2·07
85 and upwards {	Males 666·7 Females 401·7 } 534·2	Males 327·1 Females 300·6 } 313·8	1 to 1·70

chronic cases and the increase in the number of cases of existing insanity, we find with regard to the number of females living on December 31st, 1891, in all asylums, and the number of female deaths during the year, the following interesting facts:—Up to the age period 25-34 the number of females living remains about equal to that of males, but with increasing years the difference between the sexes becomes more and more marked, the number of females living predominating over males until at the age period 75-

84 and upwards the number of females living is double that of males. The percentage death-rate, on the other hand (while in the sane population the numbers approximate closely for the sexes up to the 35th year, and after that period diminish slowly for females, the differences progressing arithmetically up to 75, and after that diminishing more rapidly until there is a difference of 27·1 at 85, in the reported insane population), shows a marked predominance of female deaths over male up to the 20th year, after which there is a steady decline, the ratio of male deaths at the 75th age period being nearly double that of the female. These facts will help to explain the higher proportion of females in the number of reported existing insane, as well as the question whether insanity is more prevalent among women than men, as a casual inspection of the aggregate of reported insane would lead us to believe.

The number of boarders admitted into registered hospitals, Metropolitan and provincial licensed houses during the year reached the total of 273; 87 of these had to be certified as patients, nine died while under care, and 178 left during this period, the number in residence on January 1st being 133. The percentage ratio of certification to admissions has increased from 27·1 last year to 31·8 this.

The usual statistical tables, showing the distribution and total number of pauper insane in the several union counties of England and Wales, the annual returns from institutions for the insane, tables of transfer, statistics of criminal lunatics, and summaries of the expenditure in county and borough asylums and in registered hospitals, furnish valuable information, but space does not permit us to enlarge on them. The following interesting items may, however, be gleaned from the Commissioners' remarks when dealing of the various institutions under their supervision.

The number of county and borough asylums remains at 67, the patients in which on January 1st, 1893, were classified thus:—

	Male.	Female.	Total.
Private.....	432	559	991
Pauper	25,392	31,051	56,443
Criminal	59	25	84
	25,883	31,635	57,518

Comparing these figures with those in the table given last year we find that the number of private patients has diminished by 112, and the criminal class by eight. The diminution in the number of private patients does not show that there is as yet any zealous inclination on the part of county and borough asylums to take advantage of the clauses of the Act making the reception of private patients permissive.

The percentage of post-mortem examinations made in these asylums shows a slight increase upon the percentage of last year, 76·8 and 76·3 respectively.

Including the new asylum at Claybury for the county of London, preparations were being made during the year for the addition of eight new asylums to the existing number of 67, viz., a second joint asylum for Somerset and Bath, an asylum for the county borough of Sunderland, one each for the county borough of Blackburn, for the county of Stafford, for the Isle of Wight, the county of West Sussex, and the county borough of Middlesborough. Improvements on a large scale are also noted in various county and borough asylums. We have the usual complaint, one which a glance at continental asylum reports will show is by no means restricted to England, that asylums are almost everywhere overcrowded, and that accommodation for the insane is in many places so inadequate as to amount to almost a crying disgrace. From the remarks made by the Commissioners we find that 33 of the 67 existing asylums are overcrowded, and that but 13 of these have prospects of relief in the near future. This is a state of things which the Commissioners very rightly make a point of urging upon the notice of local authorities, and many of them appear alive to the requirements of the community, but it will not be until some enactment enforcing better accommodation for the insane is promulgated that we shall see a more satisfactory and speedy method of dealing with this congestion of existing institutions.

Defective sanitation in 11 asylums appears to have originated epidemics of diarrhœa, dysenteric diarrhœa, enteritis, typhoid fever, erysipelas, and diphtheria. Most of these were traceable to defective soil pipes, w.c. fittings, etc., as well as to contaminated water supply. The spread of small-pox at one asylum was promptly stopped by a revaccination of all the patients.

The suicides in county and borough asylums numbered 14, and one also occurred while the patient was absent on leave. Though slightly in excess of the number last year

"it shows" (we quote from the Report) "that so far as this danger is concerned the supervision of the insane in institutions where the number of persons either admitted with or developing a suicidal disposition is very large is not unsatisfactory." Details of these suicides (five females and ten males) occurring in 13 asylums are given. Six of these (two females and four males) were by hanging, two (males) by cut throat, one (female) by a leap from a dormitory window, one (female) by burning, one (female) by drinking a large quantity of carbolic acid lotion, one (male) by the infliction of abdominal wounds, one (male) by self-suffocation—stuffing a piece of flannel down his throat, one (male) by running his head against a wall by which the 5th cervical vertebra was fractured, and the patient on leave (a male) by drowning. Misadventure other than suicides accounts for 38 deaths. Fifteen of these were due to suffocation in epileptic fits. "It is many years," say the Commissioners, "since we have had to record so many deaths from epileptic suffocation, the greatest number of such deaths during any one of the previous five years having been 10. On reference to the details of their occurrence it will be seen that while some of them were probably unavoidable, in some the relaxation or disregard of necessary precautions contributed to the fatal result."

The average weekly cost of maintenance per head in county and borough asylums was as follows :—

	s.	d.
In County Asylums	8	11 $\frac{5}{8}$
In Borough Asylums	10	0
In both taken together	9	2

The number of registered hospitals remains the same, for though the Royal India Asylum at Ealing was closed last summer, the Western Counties Idiot Asylum has been registered as an institution for idiots. One suicide after escape is recorded, and a patient absent on leave drowned himself, but there is no notification of death by misadventure.

The number of licensed houses is diminished by four, being reduced to 30 in the Metropolitan district and to 52 in the provinces. The remark is made that "it is but fair to the licensees" in Metropolitan houses "to say that our requirements are, as a rule, more favourably entertained now that the existence of their establishments is no longer threatened." We may be wrong, but so far as

we know, the Commissioners' recommendations in licensed houses receive far prompter attention than in any hospital or county asylum. In metropolitan houses there have been one suicide (of a female by forcing a piece of stick down the throat) and three fatal casualties (impaction of meat in the glottis, burns, and fractured ribs). In provincial licensed houses there have been no suicides, and but one fatal casualty—death from suffocation in an epileptic fit.

The number of single patients shows a decrease to 434, about one-third of which (148) are chancery patients. One accidental death (pneumonia after burns) is recorded.

It seems to us a remarkable circumstance that while the new Lunacy Act permits one *or more* certified single patients in the same house, the Commissioners do not give their sanction to this arrangement.

Of the lunatics in workhouses the total number (16,878) shows a decrease of 20 as compared with the number last year.

The rest of the Report is made up of the usual entries by the Commissioners at county and borough asylums, and in their visitations to registered hospitals. From these much useful information may be obtained. A peculiarity which has often occurred to us in perusing these reports is that while a meed of praise is always, when deserved, granted to the medical officers in county asylums for the efficient manner in which the case books are kept, none such is ever accorded the medical officers in hospitals or in licensed houses (when entries of the latter appear in the Report). We can hardly suppose that the work in these institutions is less conscientiously done, and it is certainly due to assistant medical officers, whether in hospitals or licensed houses, that proper mention should be made of efficient work, if merited, when neglect of such duty is promptly visited by censure. In one of their entries the Commissioners define seclusion as "compulsory isolation by day." This in another place is made to include the setting apart of a patient in a railed-off portion of an airing-court.

From the fulness and accuracy of this report it will be gathered that there is no lack of zeal in the Lunacy Department. It is an interesting summary of a year's work.

État Mental des Hystériques ; les Stigmates Mentaux. Par
PIERRE JANET. Paris, 1892.

(Concluded from p. 429.)

Passing on from hysterical anæsthesia we proceed to notice M. Janet's observations upon hysterical amnesia. Here, "The elements of remembrance, the preservation and reproduction of images are intact, but there is a defect in the actual synthesis of the mental elements, a defect which more or less completely prevents the assimilation of the memory and the personality" (p. 111). Loss of memory and amnesic localization in hysteria depend sometimes upon (1) the state of the subject the moment he acquires memory ; (2) his state when he attempts to reproduce it ; (3) the nature and the development of the phenomena which had been forgotten ; and (4) modifications of sensibility.

(1) Insufficient memory may depend upon its having been badly acquired and organized from the beginning. This proposition is indisputable.

(2) The second statement is also undeniable. "Marguerite has ordinarily only a slight loss of memory ; she can by an effort of attention recover almost all that she tries to remember, except events occurring during her attacks and the state of somnambulism. But at certain moments her memory appears to be completely destroyed ; she no longer remembers anything ; she forgets even the current events of her life. With this loss of memory, as with the narrowing of the visual field, the approach of an attack can be foretold. She afterwards describes the state, thus : ' I well know now why I could not remember anything ; it is because I could not follow or retain an idea ; my head was empty.' Here the present condition of the mind determines the forgetfulness of the past" (p. 114).

(3) M. Janet refers next to the peculiar loss of memory which promises to be for long "the torment of psychologists"—retrograde amnesia. Recent memories are, everyone knows, less stable than old ones. M. Sollier believes that this is due to the more frequent repetition of the acts of memory which occur in the latter. The author feels that this is not a universal explanation of retrograde amnesia, but he is unable to offer a more satisfactory account of this familiar phenomenon. With him it remains a mystery. Bernheim observes that almost all cases of induced somnam-

bulism, that even the shortest, are accompanied by retrograde loss of memory. The subconscious phenomena of automatic writing not only involve forgetfulness of writing itself, but also of the surrounding acts performed before, during, or even immediately after performance (p. 115).

(4) As to the modifications of sensibility associated with loss of memory, they are more influential than is generally supposed. M. Janet records a striking case in point. M. Janet, as the result of experiment, finds that frequently, when a hysterical patient has completely lost a certain sensation, she has lost at the same time the perception of images which depend upon it. Thus a patient was the subject of complete dyschromatopsy, in fact did not perceive any colour by either eye. Hence it was impossible to induce any coloured hallucination. She said she saw flowers which he suggested to her, but she always saw them grey and white. If it was very strongly suggested to a subject that he had a particular tactile sensation in a limb which was anæsthetic, it sometimes happened that the suggestion succeeded; pinching the arm showing that its sensibility had entirely returned. The image could not be evoked without restoring at the same time the sensation itself in the personal consciousness. These experiments may be indefinitely varied, and in most instances a fairly regular law can be established; sensations and the images of the same kind seem assured; they are at once present or absent in personal perception.

However, M. Janet frankly confesses that he is far from being able to explain fully the problem of the localization of losses of memory.

Hysterical aboulia is very fully considered.

Motor troubles, including weakness of the voluntary movements, partial catalepsis, and contracture are analysed.

Perhaps the most important of all the chapters in this book is that which treats of the modifications of intelligence and the emotions.

Summarily the characteristics of hysteria are its mobility and contradictions—that is to say the patient never rests long in the same mood. She passes momentarily from affection to indifference, from gaiety to sadness, from hope to despair. In short, her equilibrium is altogether uncertain; now this way, now that. There is no one trait of character which may not be at any moment contradicted by some apparently different act. Hysterical patients are by turns apathetic and emotional, hesitating and obstinate. The

author recognizes in all the same meaning—the want of mental unity, but the preservation of automatic phenomena in an exaggerated form.

We fail, however, to do justice to our author by this rapid analysis of an original treatise. The mental condition of the hysterical is an enigma which the philosophic mind of M. Janet is well fitted to solve. We must leave to the reader the fuller study of a book which, of unpretentious size, is nevertheless a thoughtful contribution to a subject too often treated in a superficial manner, but which in reality affords exceptional opportunities for psychological research. Hysteria repels us, it may be, because it deceives us by its exquisite mimicry. It has again and again caused the ablest and most experienced to trip. It has well-nigh destroyed a reputation. No wonder the physician is shy of tackling it lest it turn again and rend him. But the more difficult the diagnosis, the more is he put on his mettle, and the more interesting is the endeavour to distinguish between the true and the false. The common phrase, “only hysteria,” while convenient as indicating that no organic disease has been discovered, is misleading when employed to mean that the disorder has no interest for the psychologist. Happily M. Janet does not fall into this error.

Die Psychopathischen Minderwertigkeiten. Von Dr. J. L. A. Koch. Dritte Abtheilung. Ravensburg. 1893.

This is the third and concluding part of Dr. Koch's work, the preceding parts of which we have already noted on their appearance. It is, as he remarks, the only recent attempt to deal in a comprehensive and methodical manner with all those mental conditions which lie on the borderland of insanity—degeneration, hereditary neurosis, “insane temperament,” neuropathic constitution, neurasthenia, obsession, epileptic character, hysteria, etc. As such it is deserving of considerable credit, and may prove a useful handbook for those who do not desire to study these outlying districts of morbid psychology in full detail. It must be added that those who are familiar with the present position of abnormal psychology will not find much that is new in Dr. Koch's book beyond its method, and that it cannot come into competition with the numerous elaborate works, already in existence, which deal with various portions of the large field here covered.

La Donna Delinquente, la Prostituta e la Donna Normale. By C. LOMBROSO and G. FERRERO. Roux and Co., Turin and Rome. 1893. Pp. 640.

In this book Prof. Lombroso has added a companion volume to his great work, "L'Uomo Delinquente." In his present task he has had a collaborator to whom he generously attributes what he terms "the most laborious and robust part of the work," that dealing with psychology and with history. In one respect the book differs from its predecessor by a very admirable feature—the very large amount of space devoted to the study of normal women. We cannot know the abnormal unless we know the normal; and the first part of this work (including the first 180 pp.) is rightly devoted to the biology, anatomy, physiology, and psychology of normal women and various characteristically feminine emotions, such as modesty, vanity, compassion, etc., are very subtly and skilfully analysed; we are then taken on to the study of criminal women and of prostitutes, who are dealt with in the same elaborate and detailed manner in which criminal men are dealt with in "L'Uomo Delinquente." Even to a greater extent than was the case in that work, the author is summarizing and presenting the results of investigations which have been carried on either by his own pupils or else, directly or indirectly, at his instigation. It is impossible to attempt to reproduce these results. The book is one of extreme interest. It will, no doubt, soon be brought rather nearer to the English reader by means of a French translation, although we can perhaps scarcely hope for an English edition at present.

Il Romanzo di un Delinquente Nato. Milan, Chiesa e Guindoni. 1893.

This book, which has attracted considerable attention, is a notable addition to an interesting department of psychological literature. The insane and the neurotic often delight in trying to find literary expression for their experiences, though it is not often our good fortune to discover that they are very successful in these attempts. Criminals, on the other hand, rarely possess either the courage or the skill to "write themselves down." This book is the autobiography of a criminal, but it is noteworthy that even in this case it is the

insane tendency in the man (for his is not a case of pure criminality) rather than the criminal tendency which has furnished the motive for his literary effort. He has delusions of persecution, and it is for an attempt on the life of his brother that he is at present leading a convict's life. These delusions can scarcely, however, be said to amount to insanity, and the very careful investigation which Antonino M. has undergone at the hands of alienists has not resulted in the conclusion that he is insane.

The whole life of Antonino M., who is a southern Italian from Calabria, has been a long series of offences. Usually these offences have been of an explosive character; during his career as a soldier he was frequently guilty of insubordination; his offences were not, however, necessarily bound up with any ideas of persecution, although he cherished ideas of revenge against various persons for trifling or imaginary wrongs. He was placed for several months by the authorities in the Girifalco Asylum, in order that he might be kept under Prof. Silvio Venturi's observation, and the question of his insanity thoroughly investigated. During this time Prof. Venturi made a very careful and elaborate examination of the man's physical and psychical characters, and he has thus been enabled to supply a detailed study which adds very greatly to the value of the introduction to this volume. No anatomical abnormality of importance was discovered, but there were various physiological anomalies such as bluntness of sensation. Prof. Venturi concludes that Antonino M. is a congenital criminal, but not a typical congenital criminal on account of his ideas of persecution and of the almost epileptic character of which he gives evidence.

There is considerable vigour and force in the autobiography; its style, so far as it can be said to have any, is characteristic of the man. He is profoundly egotistic; he sees in everything only its relation to himself; he is deeply impressed by the wrong deeds of others; it is clear that he has never realized the guilt of his own deeds, and even when there can be no suspicion of revenge, as in narrating an episode of pæderasty, it does not seem to occur to him that there is any occasion for shame or remorse. His history shows very clearly the close relationship between instinctive criminality and moral insanity, if, indeed, the two names do not refer to the same psychic state. He reveals himself in his autobiography without any suspicion of the nature of the revelation. He has not the faintest power of self-analysis;

in this he is quite different from the interesting criminal from whose autobiography passages were quoted in the "Retrospect of Criminal Anthropology" in this Journal for last January. The two criminals have much in common, both being instinctively criminal, so far as can be judged, and both with a taint of insanity, but Bragg possesses the power of remembering and faithfully recording his own mental states.

The publication of the book is due to Sig. A. G. Bianchi, who writes the introduction and who has already done much to further the study of morbid psychology and to create general interest in its modern developments.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Pathological Retrospect.*

By EDWIN GOODALL, M.D.Lond., B.S., M.R.C.P., West Riding Asylum, Wakefield.

Note on a Chinese Brain.

Derkum ("Journ. Nervous and Mental Disease," 1892, xvii.) gives an anatomical description of a Chinese brain, the seventh which has been carefully examined. In this the features characteristic of the other brains were again noted, namely, unusual degree of convolution, disposition to anastomosis in the perpendicular and horizontal directions, and marked obliquity of the orbital surfaces of the frontal lobes (with the last-mentioned may probably be associated the peculiar position of the eyes in the Chinese). Blending of the central and Sylvian fissures is said to be a frequent feature of such brains. For other details see the original paper.

Histology of the Nervous System in Paralysis Agitans and Senility.

Ketscher ("Zeitsch. f. Heilkunde," Bd. xiii., H. 6, 1892; abstract in "Neurolog. Centralbl.," March 1, 1893) has examined the central and peripheral nervous system in three cases of paralysis agitans. In all there were morbid changes. The specific tissue-elements showed various degrees of atrophy; the cerebral ganglion cells were strongly pigmented, rounded, and here and there in a state of granular degeneration; the spinal nerve-fibres, especially in the posterior columns, were degenerate and atrophied, and here and there had disappeared, so that holes were present; the same applied to the peripheral nerve-fibres. The interstitial tissue was much increased in the cord and nerves. Vessels much altered, walls thickened, miliary aneurisms, and hæmorrhages here

and there, adventitial sheaths bulging in places, and the spaces filled with round cells and lymph. These changes agree with those described by other authors. Conjecturing that they might be due merely to senility, Ketscher examined the nervous system of ten old persons free from paralysis agitans. He found changes which did not differ qualitatively at all from those present in the cases of paralysis agitans, though they were less marked. He is, therefore, of opinion that this affection is merely the expression of unusually pronounced and possibly premature senility.

Van Gieson's Stain for the Central Nervous System.

V. Kahlden ("Centralbl. f. Allgem. Path.," 2 June, 1893) speaks highly of this stain, which is especially adapted for the demonstration of the axis-cylinder. Proceed as follows:—1. Stain sections 3-5min. in a hæmatoxylin solution. Wash well. 2. Stain in a mixture of sat. aq. sol. prussic acid and sat. aq. sol. acid fuchsin—sufficient of the latter fluid to make a deep-red solution. 3. Wash rapidly in water. Spirit, alcohol, origanum oil, Canada balsam. Delafield's hæmatoxylin or ordinary alum-hæmatoxylin may be employed. Axis-cylinder appears deep-red, medullated sheaths yellow, the glia is of a reddish tint, nuclei are blue-violet, sclerosed tissue is intense red. Axis-cylinder, according to V. Kahlden, stain better in preparations hardened in Müller's fluid than in those hardened in alcohol. He says the method is of great service where it is important to differentiate between tissue-constituents. It may be added that with this method hyaline material stains a deep-red, colloid a fainter-red or even slightly brown. The relation of amyloid material, which stains a light-red, to the tissue constituents, especially the vessel-walls, is brought out better by this than by any other method.

Congo-Red as an Axis-Cylinder Stain.

Alt ("Münchener Medizinische Wochensche.," 1892, No. 4) recommends this highly, especially for peripheral nerves. He states that by it axis-cylinders can be traced to their finest ramifications. Sections of tissues, hardened and cut as usual, are stained in a solution of Congo-red in abs. alcohol [deep-red] at 35° C. for $\frac{3}{4}$ -2 hours. Superfluous stain is removed by placing sections for 10 minutes in alcohol 96 %, and thereafter in absolute alcohol. In the latter the red section becomes of a deep-blue colour, and at the same time some differentiation takes place. Clear in bergamot oil, mount in chloroform balsam. Sandarac is also recommended for mounting, especially for peripheral nerves. Axis-cylinders are stained deep-blue, other tissue-elements shades of blue and violet. It is not clear what, if any, advantages this method has over the old one of Nissl (1886), with which the writer has ob-

tained good results, and which is as follows:—Sections of nerve-tissue hardened in bichromate are passed out of alcohol 95 % into aq. sol. Congo-red of strength 5·400. In this they remain 72 hours. Transfer to alcohol 95 % 5-10 minutes, and then to acid-alcohol (nitric acid 3 %) for six hours. Alcohol, clove oil, balsam. The acid-alcohol acts as the differentiating agent, much stain being dissolved out by it. Alcohol alone will remove some of the stain. Axis-cylinders in transverse and longitudinal section are stained brown-black. Nerve and connective-tissue cells of same tint, or purplish. Ground substance light brown.

Weigert has modified his method for staining *medullated nerve-fibres* in such a manner that differentiation as performed in the original method is dispensed with. The modification is, perhaps, not commonly known in this country, and so may be given here (see "Deutsche Medizin. Wochenschr.," 1891, No. 42). Harden as usual and imbed in celloidin as usual. Float the imbedded pieces for 24 hours in the incubator in following solution:—Neutral acetate copper, sat. sol. in the cold, filtered; 10 % sol. tartrate of soda, equal parts. Then keep 24-48 hours (latter say for pons) in simple aq. sol. neutral acetate copper in incubator. Wash lightly in water; 80 % alcohol, cut. Have ready sol. A, 7 parts sat. aq. sol. lithium carbonate, 93 parts water, and sol. B, 1 part hæmatoxylin, 10 parts abs. alcohol, 90 parts water, 1 part sat. aq. sol. lithium carb. Just before use mix 9 parts A with 1 part B. Leave sections in mixture 4-5 hours (24 hours not harmful). Wash in water, then in alcohol, 90 %, clear in anilin-xylool (2 parts anilin oil, 1 part xylool), then in xylool. Xylool-balsam.

Black staining on a clear red ground. Over-stained sections are treated with borax ferricyanide, as usual.

Practical Point in Conducting Weigert's Process or Pal's Modification.

The carbonate of lithium solution usually added to the hæmatoxylin stain need not be employed until after the latter. In this case sections are removed from the hæmatoxylin after the lapse of the usual time and placed in sat. sol. lith. carb. Here they remain till sufficiently dark. Proceed then as usual. By following this plan the same hæmatoxylin solution may be used repeatedly. Possibly the hæmatoxylin-lithium solution may be employed several times over, but the fact that it is quite opaque renders it much less convenient to work with than the translucent plain solution, even if the supposition is correct, which is doubtful.

Stains for the Central Nervous System (Rehm, "München. Medizin. Wochenschr.," 1892, No. 13).

Isolated staining of connective-tissues, nuclei, and nuclei of blood-vessels. 1. Sections are placed for a few minutes in 1 % aq. sol. eosin (cold), washed in water and alcohol, transferred for some

minutes to 0.1 % aq. sol. dahlia. Differentiation and dehydration in alcohol; origanum oil, balsam. 2. In place of eosin 1 % aq. sol. nigrosin, in place of dahlia 0.1 % alcoholic sol. fuchsin are used. One half-hour in each of these. Differentiation in alcohol, clove oil, chloroform, colophonium. With the first method the nuclei are dark-blue, all other parts red; with the second nuclei are red, other parts blue-grey.

Rehm recommends the following carmine solution as a very good under stain:—Carmine 1 gram., liq. ammon. caust. 1 c.c., aq. dest. 100 c.c. Sections remain in this five minutes, are then washed in 70 % alcohol, to which is added nitric acid in proportion 1 c.c.-100 c.c. Transfer to pure alcohol to remove the acid, and then to cold sol. methylene blue 10.1 %, in which sections remain half a minute. Differentiation in alcohol, origanum oil, colophonium. Nuclei of nerve-cells bright-red (the nuclear network is well shown), protoplasm of nerve-cells blue. Nuclei of connective-tissue and blood-vessels blue or violet.

For the demonstration of the axis-cylinder Rehm uses a 0.5 % aq. sol. hæmatoxylin. In this sections remain 1-2 days. Wash in water (to 100 c.c. of which is added 1 c.c. conc. sol. lith. carb.) till no more colour is removed. Differentiate in 96 % alcohol. Origanum oil, balsam. Axis-cylinders are grey black, connective-tissue is but little stained. Nuclei of vessels clearly shown. By leaving sections one day in the hæmatoxylin, differentiating as above, and transferring (after momentary use of alcohol) for a few minutes to 0.1 % aq. sol. bismarck-brown, good results are obtained. The axis-cylinders and nerve-cell nuclei appear grey, cell-substance is stained brown.

Sublimate-Toluidin-Blue Method for the Demonstration of Nuclear Structures, Blood-Vessels, and Nerve-Cells.

For the demonstration of nerve-cells and nerve and connective tissue-nuclei the writer finds that the following method presents many advantages; it may possibly be novel. Tissues are hardened in sublimate. (This is not only a good hardening agent, but also an excellent fixative, and so adapted for the demonstration of nuclear structure and other fine details.) The following solution may be used:—Sublimate, $7\frac{1}{2}$ gram.; 0.5 % salt-sol. 100 c.c. Dissolve by heat. Pieces—not too large—remain in this about 24 hours. Wash thoroughly in water (this is important to remove deposits of mercury), and then pass through alcohols, 30 %, 70 %, 96 %—24 hours in each. Cut sections and stain in aq. sol. toluidin-blue 0.1 % for about 48 hours. The cortex is now a uniform deep blue, medulla a fainter blue. Wash in water; some stain extracted. Wash in methylated spirit, and finally in abs. alcohol. Much stain is removed. Presently the clouds of stain almost cease to form. Transfer at once to xylol. Further extraction is thus presented. Mount in xylol-balsam. The

section has a light-blue or purplish tint. Connective-tissue nuclei, including those of vessel-walls, very well stained; so also are nerve-cell nuclei. All these structures blue or purple. Nerve-cells of similar though lighter tint. Their processes are stained about as well as in the case of chrome-hardened specimens treated by the ordinary dyes. The neuroglia basis is practically colourless. The stain must be regarded as chiefly a nuclear one. Specimens some months old show no fading.

A Neuroglia Stain.

It has been observed—especially by Lubarsch—that in Weigert's method for staining fibrin several other tissue-constituents become stained as well as fibrin. Beneke, experimenting with the method, found that connective-tissue is often stained by it. He now communicates to the "*Centralblatt f. Allgem. Path.*," 28 July, 1893, a modification of Weigert's fibrin-method, by which connective-tissue in the most diverse organs can be consistently stained. Amongst these is the brain; the spider-cells and their prolongations, the fine fibrous networks between pia and cortex and around the ventricles, are stained by the process recommended. The fibrous meshwork of sclerosed tissue is shown remarkably well. The principle of the modified method of Beneke lies in the fact that the Weigert stain is not a specific stain for fibrin; it has an affinity, though less marked, for several other of the tissue-constituents. The stain, as is well known, is anilin-water-gentian-violet. The decolourizing (differentiating) fluid is a mixture of anilin and xylol (2-1), and of these two ingredients only the anilin oil is directly operative; the xylol merely controls the other, having no decolourizing power. Obviously, by increasing the proportion of xylol, the action of the anilin-xylol should be weakened, and thus various tissue-elements might be demonstrated which the original method fails to show. Beneke, in fact, finds that by employing a mixture of anilin oil and xylol in the proportion of 2-3, connective-tissue structures can be well shown. This is the respect in which his method differs from Weigert's. Experience is needed in order to decide the right moment at which the action of the decolourizing fluid should be checked by the use of xylol. For details see the original paper.

Photoxylol as an Imbedding Material.

Photoxylol is said to have replaced celloidin as an imbedding material in many German laboratories, as it possesses all the merits of the latter, and has in addition the advantage of greater translucency. In the investigation of small slightly-stained objects this is a point of undoubted importance, but for ordinary purposes it may be pointed out that common collodion is perfectly suitable, and at the same time less expensive than either celloidin

or photoxylin. Photoxylin is stated to be allied chemically to celloidin. It has the appearance of fine, pure cotton-wool; is soluble in equal parts of alcohol and ether, and is employed in precisely the same manner as celloidin. It may be obtained from Gruebler, Leipzig, or London (R. Kanthack, Golden Square).

A Simple Method of Fixing Paraffin Sections to the Slide.

This was introduced by Gulland not long since. An essential point in employing the method is to have absolutely clean slides upon which water will lie in a continuous layer. The slides are thoroughly cleaned with a wet cloth. Ribands of sections of suitable length are floated on warm water, below the wetting point of the paraffin; of course curled-up sections are in this way straightened. (This part of the method is not new.) The ribands are then taken up on the slides. Adhesion of the former to the latter is brought about simply by keeping the slides for several hours (*e.g.*, overnight) at about 35° C.--as in an incubator. The sections adhere so strongly that they remain fixed when exposed to a strong stream of water. The paraffin may now be removed—after melting it by placing the slide a short time in the paraffin oven—by xylol, and all customary subsequent manipulations may then be undertaken. This method is much superior to the methods of fixation by albumin-glycerin mixtures, in which the fixing material becomes stained by many of the dyes used.

2. *American Retrospect.*

By D. HACK TUKE, F.R.C.P.

Progress in the Care and Handling of the Insane in the Last Twenty Years.

Dr. Eugene Riggs, of St. Paul, Minn., U.S.A., the Chairman of the Committee on the History of the Treatment of the Insane, appointed by the National Conference of Corrections and Charities, read the report at its twentieth annual meeting, held June 12-18, 1893, at Chicago. The article is evidently drawn up by himself, and endorsed by the Committee. It constitutes an interesting and valuable review of the progress made in the care of the insane, the first era being that of neglect, the second that of detention more or less severe in character, and the third that in which we live, including the last twenty years. Dr. Riggs commences with the dawn of intelligence in the care of the insane in England in 1792, when the Retreat at York was founded. The period between this date and 1815 is recognized as one coincident in France with the beneficent work of Pinel, reinforced a little later by that of Esquirol. "Since that time both there and here

(America) the battle for the increasingly intelligent application of that principle has been going on."

The best of American asylum men held the same ideas fifty and sixty years ago as those of the best asylum men of the present day. Then, as now, the importance of superior attendants was fully recognized. Even the segregate system now to the fore was advocated by Dr. Woodward, of Worcester, Mass., in 1832. Moreover, in some asylums at that early period, non-restraint, it is alleged, was not unfrequently adopted. It is true, however, that the main advance in the treatment of the insane in America has been made during the last twenty years. The public have come to understand that insanity is the symptom of a physical disease. Formerly this belief was held by a small minority. Works on medical psychology are "in the hands of high school and collegiate students as reference books." On the philanthropic side the publication of the life of Miss Dix gave an impetus to the claims of the insane in the public mind. Insanity has been studied as it never was before, and asylums have been visited by students for the purpose of gaining some practical acquaintance with it before entering into practice.

Dr. Riggs enters upon the method adopted in various States in regard to the commitment of the insane, but our space will not allow of our quoting his account, important as it is. In fact we find it necessary to do little more than record our appreciation of the historical value of the retrospect before us. We are glad to observe that Dr. Riggs recognizes that American county asylums have not been altogether unsatisfactory in their management. At the same time "State Care" must be ultimately accepted as the proper mode of providing for and inspecting the insane. County care was introduced by the Wisconsin Board for the care of the chronic insane in 1871; previously the state of the insane in poorhouses was an "awful one." Legislation provided that whenever there was insufficient provision in the State hospitals they might care for chronic lunatics under such rules as the Board of Charities might prescribe. The small county asylums of Wisconsin were established under this law. Notwithstanding the objections which may be raised against institutions managed from the standpoint of business, it is admitted that "under the supervision of an active and energetic Board in entire sympathy with the system, it has proved satisfactory in the main to the people of Wisconsin."

No sketch like that attempted by Dr. Riggs could fail to give prominence to the remarkable change which has taken place in the character and arrangement of the buildings in which the insane are located. "Annexes, pavilions, cottages, and colonies have been developed in connection with the older institutions, and many of the newer ones have been erected in a wholly segregated style. The buildings in some cases are connected by corridors

either above or underground, in other cases wholly detached." The following examples are enumerated in order of the date. The Willard Asylum with detached blocks; the Norristown Institution, near Philadelphia, having a series of blocks, for the most part two stories in height; the Kankakee Asylum or Illinois Eastern Hospital, there being twenty-five separate buildings for a population of more than 2,000. There are also the Toledo Asylum without any building of the old-fashioned linear type, but with detached two-storey buildings; the North Dakota Hospital in James Town; those at Logansport and Richmond, Indiana, and the St. Lawrence State Hospital near Ogdensburg, New York. The Central Islip Institution is on Long Island, and its wards are detached, and nearly all are one storey high. This system has been made more practicable by the invention of the telephone. Dr. Riggs declares that "experience at Kankakee, Toledo, and elsewhere has shown that such institutions are practical, economical, and capable of efficient administration. As against a few hundred insane sheltered in this manner twelve years ago, there are now probably more than 6,000 so cared for."

The asylum at Kalanazoo, Mich., belongs to the colony system, in which there is a central building which is a hospital for acute cases. Within one to three miles of this building is land amounting to 600 or 1,000 acres. On this ground are to be erected buildings for the patients who can properly live outside the hospital. The cottages contain 30 to 50 patients, under the charge of a man and his wife. The land is to be used as a farm, and will furnish occupation for the patients as well as lessen expense. It is contended that this system unites the advantages of the cottage asylum with the best elements of the Wisconsin system, in which we have ourselves witnessed with satisfaction out-of-door life and useful work on the farm.

We are glad to find Dr. Riggs stating that whatever may be the final form asylums in America may take, the "present tendency is certainly towards some flexible segregate system of which a hospital is the true centre." In the remaining portion of this paper the importance of separating the criminal from the non-criminal insane is strongly enforced. The need of separate provision for the epileptic is also contended for.

Valuable as is this paper as a survey of the past, its importance for the present and the future is still greater. We hope it will tend to advance the movement in the directions indicated.

3. *German Retrospect.*

BY W. W. IRELAND, M.D.

Suicide of Young Persons.

In the "Allgemeine Zeitschrift für Psychiatrie" (xlviii. Band, 3 Heft) there are published some statistics about the suicide of young persons, which are of terrible interest. During the six years 1883-88, 289 scholars committed suicide. The returns for each year were as follows:—

Schools.	1883.	1884.	1885.	1886.	1887.	1888.
Higher ...	19 ...	14 ...	10 ...	8 ...	17 ...	42
Lower ...	39 ...	27 ...	30 ...	36 ...	33 ...	14
Of these were—						
Males ...	50 ...	33 ...	33 ...	38 ...	41 ...	45
Females ...	8 ...	8 ...	7 ...	6 ...	9 ...	11

The causes which induced these young people to commit suicide were unknown in about 30 per cent. In the higher schools the suicides of 11 males and one female were put down to insanity. In the lower schools 12 males and two females were assigned to distress about examinations, and 11 suicides to morbid jealousy or craving for distinction. Unhappy love is put down as the cause of suicide in four males and one female in the higher schools, and fear of punishment was a cause of suicide in one male and one female in the higher schools, but of no less than 45 suicides of males and 23 of females in the lower schools.

Singular Case of Aphasic Defect. ("Zeitschrift für Psychiatrie," xlix. Band, 1 and 2 Heft.)

The subject of this observation was a woman thirty-eight years of age, who, by her own report, suffered from syphilis when sixteen. She bore evident marks of severe constitutional affection. She applied to Dr. Heilbronner for relief from a difficulty in speaking. It was found that the intellect and memory were not affected. She could read and write, but could not express herself correctly owing to the omission of important words in her sentences. The words which were dropped were principally verbs, especially verbs which had a concrete meaning, such as those used to signify the sounds of animals, the operations in special trades, and particular actions and events. Such verbs were, almost without exception, forgotten. On the other hand, the auxiliary verbs, and those words which bear the most general meaning, such as be, have, may, shall, were well remembered and came frequently into use. Verbs which were remembered were always correctly conjugated.

The explanation was offered that owing to mental deficiency the

last part of the sentence had quickly faded from the memory, so that the patient was unable to hold in mind the beginning of the sentence so as to complete it with the verb which in the German language comes in at the end. Dr. Heilbronner dismisses this explanation because the patient in other respects had no weakness of memory, and showed by her gestures that her mind was seeking for the absent verb to bring out her meaning. Wundt has laid down as a rule that in the cases in which certain words are lost those words which disappear most easily from the memory are associated with concrete sensory impressions. This explanation held good so far that it was the more concrete verbs which were lost, but then why were the substantives retained? Nouns have generally a more concrete character than verbs. Dr. Heilbronner cites a number of cases recorded by different observers in which the particles of speech which the patients fail to recall were nouns, especially particular names. As in Dr. Heilbronner's case, these were well enough preserved; his observation is unique, and he is unable to offer any explanation of it.

Ætiology of General Paralysis.

Dr. Cebelle ("Allgemeine Zeitschrift für Psychiatrie," xlix. Band, 1 and 2 Heft) presents the results of his inquiries into the causation of general paralysis in one hundred patients in the private asylum at Eendenich. These patients belong to the wealthier classes. He finds that syphilis existed in 53; of these 38 had shown secondary symptoms. Dr. Cebelle accounts for the larger percentage of cases of syphilis in general paralytics in private over public asylums by the observation that syphilis is common with educated persons. As 47 per cent. of Cebelle's patients had escaped this malady, it is clear other causes have their play. It is rare that general paralysis can be assigned to a single cause. Four cases are assigned to excessive mental exertion alone; three cases to syphilis alone. Direct heredity appears in 22 per cent., and personal anomalies in 44 per cent. Sexual excess was known to have occurred in 41, and abuse of alcohol in 43 per cent.; overwork or exhausting passions in 42. Seventy-three of the patients were married; 27 unmarried. Three of the cases were under 30 years of age; most of them were between 30 and 50; seven took the disease after 50, and two after 60.

The primary lesion of general paralysis is still disputed. Some pathologists—as Calmeil, Magnan, Obersteiner, Mendel, and Gerdes—regard it as a diseased condition of the vessels following upon syphilitic infection, and exciting parenchymatous inflammation of the nervous tissues as a secondary affection. Others—as Tuzek, Wernicke, Joffroy, Pierret, Zacher, and Friedmann—regard the parenchymatous changes as beginning in the nerve-tissues partly with dissolution of the nerve-cells and partly with wasting of the

nerve-fibres. In the end both these anatomical elements are involved in the destructive process.

Variability in Delusions.

Dr. Theodore Kölle has made a study of the variability in the delusions and hallucinations of the insane (*"Allgemeine Zeitschrift für Psychiatrie,"* xlix. Band, 1 und 2 les Heft). In delirium there is a rapid change of thought and images often without any apparent connection. In some forms of chronic insanity, as in melancholia, the delusions are more constant. Fixed ideas are even a special characteristic of paranoia, but this fixity of delusions is only apparent. A closely-followed examination shows how in time the ideas shift. Delusions may vary in extent; the delusion gradually extends itself to wider circles, and involves more and more the conduct of the man. The delusions may become exaggerated, as when a patient believes himself an earl, and then believes himself emperor. The central delusion persisting, the details may vary, as when a patient believes himself to be poisoned first by one drug, then by another, sometimes in his food, sometimes through inhalation or through inunction. Dr. Kölle finds the delusions change more rapidly than hallucinations. The more the intellect declines in strength the more variable the delusions become. This shows that the critical faculty still exerts itself in limiting the delusions which it cannot entirely banish. Dr. Kölle's paper is illustrated by some carefully observed cases.

Toxic Insanities.

Dr. Knörr has made a study of toxic insanity (*"Allgemeine Zeitschrift,"* xlviii. Band, 6 Heft). After describing some typical cases, he states at the end the following conclusions:—Insanity may come as a sequel to a bout of drinking in habitual drunkards. It may also follow the abuse of opium, cocaine, and the poison of influenza. This insanity has the character of acute paranoia, the so-called abortive paranoia of Sander. It has for a primary symptom hallucinations of hearing attended by delusions, of persecution and mental distress, without any ideas of grandeur. The psychosis runs a rapid course, always ending in recovery. In acute alcoholic paranoia there are elementary hallucinations of hearing, which indicate a favourable prognosis, whereas in chronic paranoia, not resting on abuse of alcohol, such hallucinations are of unfavourable significance. These auditory hallucinations are generally connected with deceptions of the muscular sense in the vocal apparatus.

Number of Deaf Mutes in Norway.

Dr. Uckermann, of Christiania (reported in *"Allgemeine Zeitschrift,"* xlviii. Band, 5 Heft), has made a careful census of the deaf in Norway, with the aid of the local clergymen, school-

masters, and doctors. The number of deaf mutes in Norway on the 1st January, 1886, amounted to 1,841; subtracting 15 born in other countries, this would make 0.95 of the population, of whom 1,028 were males and 798 females. Of the 1,826 deaf mutes born in Norway 932—51 per cent.—were so from birth; 886—48.5 per cent.—had acquired deafness; and in 8.0—43 per cent.—the causes were undetermined. The proportion of born deaf mutes in the male sex was 52.6; in the female 47.3 per cent.; in acquired deafness the proportion was 60 for the males and 39.8 per cent. for the females.

Born deafness is common in the west of Norway and in the deep mountain valleys where life is still and the people poor. Acquired deafness was found to be commonest in the north of Norway about Drontheim, where there had been a great epidemic of cerebro-spinal meningitis. Of those born deaf 50 per cent. had one or several congenital deaf mutes as relations, but only in three cases were the parents themselves deaf mutes. In 25 per cent. of the marriages of these relations there was more than one deaf child born; 23 per cent. of the cases came from consanguineous marriages, that is, the parents were cousins or more nearly related. Uckermann estimates the proportion of such close marriages in the ordinary population of Norway as from four to five per cent. The causes of acquired deafness were cerebritis and cerebro-spinal meningitis, 32 per cent.; scarlet fever, 27.5; typhoid fever, 4.4; otitis, 7.7; measles, 2.5; and whooping cough, 2 per cent. Of the born deaf 3.0 per cent. were totally so; 34 could hear some sound, and 14 could hear the voice in some degree. The remaining 20 per cent. could distinguish words more or less. In acquired deafness these proportions stood 37 per cent. quite deaf, 34 heard sounds, 11 heard noises, 16 per cent. heard words.

New Treatment of Patients Refusing Food. ("Allgemeine Zeitschrift," xlviii. Band, 6 Heft).

It is needless to dilate on the disagreeableness and dangers of forcible feeding in asylums. Some of the patients who refuse all nourishment are still curable cases. It is often an object to tide over the danger of sinking till the resistive impulse has subsided or passed away. It occurred to Dr. George Ilberg to try subcutaneous injections of 0.5—0.75 gramme of common salt to one per cent. of water to help to sustain patients during periods of weakness following long-continued abstinence. He was encouraged by the success which had attended this plan in states of collapse in surgical and obstetrical practice.

Dr. Ilberg tried this treatment in five patients in the asylum at Heidelberg. He also reports another case from an asylum at Dresden. For his procedure he uses an injection needle fifteen centimetres long and three millimetres thick, connected with a gutta percha tube. This tube at the other end is attached to a

glass irrigator, having a lid and fitted to a stop-cock. The apparatus is carefully sterilized and then filled with a solution of chloride of sodium, 7.5 of a gramme to 1,000 grammes of distilled water at a temperature from 39 deg. to 37 deg. C. The needle is passed into the subcutaneous tissue of the breast, back, or hip. On the stop-cock being opened the solution streams into the subcutaneous tissue.

As a result of his experiments Dr. Ilberg recommends this treatment in all cases of prolonged abstinence from food. He thinks that it sometimes seems to induce patients to commence again to take nourishment. With proper aseptic precautions the procedure is free from danger. If it fail to sustain the patient through the crisis, forcible feeding can still be used. The injections of the solution of salt may also be used in cases of collapse that do not admit of forcible feeding.

PART IV.—NOTES AND NEWS.

ANNUAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The fifty-second Annual Meeting of the Medico-Psychological Association of Great Britain and Ireland was held at Buxton, Derbyshire, on July 28th last, at the Palace Hotel. Amongst those present were Dr. Murray Lindsay, Dr. J. H. Paul, Dr. W. W. Ireland, Mr. J. Peeke Richards, Dr. Fletcher Beach (Hon. Gen. Sec.), Dr. T. Outterson Wood, Dr. F. R. Elkins, Dr. John Keay, Dr. J. T. Hingston, Dr. Bower, Dr. Hack Tuke, Dr. Savage, Dr. Benham, Dr. Holmes, Dr. J. Rutherford, Dr. O. Woods, Dr. Cole, Dr. Chambers, Dr. Gardiner Hill, Dr. Patton, Dr. Conolly Norman, Dr. Russell, Dr. T. W. McDowall, Dr. Howden, Dr. Urquhart, Dr. Rayner, Dr. Baker, Dr. Whitcombe, Dr. Hayes Newington, Dr. J. B. Spence, Dr. Turnbull, Dr. Yellowlees, Dr. Clouston, Dr. J. G. McDowall, Dr. Bonville Fox, Mr. Rooke Ley, Dr. Percy Smith, Dr. Mercier, Dr. F. K. Dickson, Dr. P. W. Macdonald, and others.

Dr. BAKER, the retiring President, said the first business was his retirement from the chair, which Dr. Murray Lindsay would take. But before he did so he had that morning a very pleasant duty to perform, and that was to once again thank the Association for the many acts of kindness extended to him during the past year. He had now to vacate the chair in favour of his good friend Dr. Murray Lindsay (applause).

The PRESIDENT, in acknowledging his election, thanked them for the honour done him, and assured them that nothing should be wanting on his part to follow the lines of his predecessors in promoting the interests of the Association, and, if possible, to increase its usefulness (applause).

The election of officers then took place. Dr. Spence and Dr. Howden were appointed Scrutineers. The election was as follows:—

<i>President</i>	JAMES MURRAY LINDSAY, M.D.
<i>President-Elect</i>	CONOLLY NORMAN, F.R.C.P.I.
<i>Ex-President</i>	ROBERT BAKER, M.D.
<i>Treasurer</i>	JOHN H. PAUL, M.D.
<i>Editors of Journal</i>	{ D. HACK TUKE, M.D. GEORGE H. SAVAGE, M.D.

<i>Auditors</i>	{ PERCY SMITH, M.D. H. HAYES NEWINGTON, M.R.C.P.Ed.
<i>Honorary Secretaries</i>	{ CONOLLY NORMAN, F.R.C.P.I., for Ireland. A. R. URQUHART, M.D., for Scotland. FLETCHER BEACH, M.B., General.
<i>Registrar</i>	J. B. SPENCE, M.D.

Members of Council.

JAMES RUTHERFORD, M.D.
J. G. McDOWALL, M.B.
H. GARDINER HILL, M.R.C.S.
B. BONVILLE FOX, M.D.
J. E. M. FINCH, M.D.
C. HETHERINGTON, M.B.
T. OUTTERSON WOOD, M.D.
F. C. GAYTON, M.D.
F. A. ELKINS, M.B.

H. T. PRINGLE, M.D.
J. MACPHERSON, M.D.
A. R. TURNBULL, M.B.
C. A. MERCIER, M.B.
E. WHITE, M.B.
H. STILWELL, M.D.
A. D. O'C. FINEGAN, L.K.Q.C.P.I.
C. S. MORRISON, L.R.C.P. and S.Ed.
W. I. DONALDSON, M.B.

Parliamentary Committee re-elected (unchanged).

ELECTION OF EXAMINERS.

The PRESIDENT stated that the Council recommended the following gentlemen as examiners :—Drs. Wiglesworth, Mercier, Campbell Clark, Turnbull, Ringrose Atkins, and Molony.

TREASURER'S REPORT.

Dr. PAUL then presented his report, which, he stated, was, on the whole, a good one. But from Ireland there was no return (laughter).

For Balance Sheet see p. 590.

AUDITORS' REPORT.

The Auditors beg to report to the Association that the accounts for 1892-3 have been audited and found correct. They suggest to the Association that it is desirable that a note should be added to each annual balance-sheet showing the amount due to the Association for unpaid subscriptions. The Secretary for Scotland having called the attention of the Auditors to the fact of certain subscriptions being in arrear for some years, they beg to point out that by Rule VIII., Chap. VI., it is the duty of the Secretaries and Treasurer to report such facts directly to the President.

The Auditors also suggest that it is very desirable that the income and expenditure under the Gaskell Prize Trust Fund should be shown in a separate account, and should not form part of the general income and expenditure of the Association.

HENRY RAYNER,
R. PERCY SMITH.

July 22, 1893.

Dr. RAYNER, as one of the auditors, moved the adoption of the balance sheet, and said, at the same time, that the auditors had presented the above report with regard to the accounts.

Dr. PERCY SMITH seconded the adoption of the balance-sheet.

Dr. BONVILLE FOX—I should like to ask the proper official what is the number of Irish members on the books?

Dr. CONOLLY NORMAN—It rests with me to explain the absence of any return from Ireland, and also to answer the question of the last speaker. There are now forty members of our Association residing in Ireland. The number has risen by twelve within the last year, I am glad to inform the Association. The absence of any return is due to the negligence of the Irish Secretary (laughter).

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Treasurer's Annual Balance Sheet, 1892-93.

RECEIPTS.				EXPENDITURE.			
To	Balance—Cash in Hand from last account	£	s. d.	By Annual, Special, and Quarterly Meetings	£	s. d.	£ s. d.
Subscriptions, England and Wales	...	220	6 2	Expenses of Reporting at various Meetings	...	35	4 7
Subscriptions, Ireland	...	325	10 0	ings ...	...	22	0 0
Subscriptions, Scotland	...	Nil		Editorial Expenses	...	12	12 0
Sale of Journal	...	54	12 0	Printing, publishing, engraving, advertising, and postage of Journal	...	425	17 5
Dividends on Consols, Gaskell Fund, £1,347	...	125	8 0	Library Account, Rent of bookcase	...	1	0 0
Invested, £306	...	36	2 4	Index Medicus (3 years)	...	7	10 0
	...	8	4 0	Sundry Expenses for Printing, Stationery, etc.	...	15	0 0
Fees received from Examinations for Certificate of Psychological Medicine	...	44	6 4	Law Expenses, Gaskell Fund	...	31	12 8
England	...	40	19 0	Gaskell Prize, Dr. Nathan Raw	...	15	0 0
Scotland	...	63	0 0	" Dr. G. R. Wilson	...	15	0 0
Ireland	...	Nil		Prize Essay, Dr. George M. Robertson	...	10	10 0
	...	103	19 0	Treasurer	...	6	6 0
Fees received from Examinations for Attendants, Nov., 1892	...	3	12 6	Accountant	...	4	4 0
May, 1893	...	21	0 0	Secretary for Ireland	...	Nil	
	...	24	12 6	Secretary for Scotland	...	6	9 3
	...			General Secretary	...	11	6 9
	...			Examiners' Fees, etc. (England)	...	22	2 0
	...			(Ireland)	...	Nil	
	...			(Scotland)	...	24	8 6
	...			Expenses for Attendants' Examination	...	13	10 11
	...			Balance in hand	...	174	0 11
	£898	14 0

Examined and found correct. (Signed) HENRY RAYNER, } AUDITORS.
R. PERCY SMITH, }

July 22nd, 1893.

The PRESIDENT said he took it that the report was adopted.

Dr. NEWINGTON suggested that it should go to the Council to deal with.

Dr. CLOUSTON added that the Council should be asked to give them an explanation of the reason why they had £52 less this year compared with last year. He did not think that such an Association as theirs could be said to be successful unless the balance-sheet showed an increase every year. Economy should be exercised, and a balance on the wrong side avoided if possible.

Dr. URQUHART—It is not much on the wrong side. If the Irish contribution had been up to time it would have been very much the same as last year.

The PRESIDENT—We should confine our expenditure within our income.

Dr. FOX called attention to the unusual item with regard to the law expenditure in respect to the Gaskell Fund, which would not occur again. That would reduce the deficit £31.

The Treasurer's report was then adopted unanimously.

Dr. HACK TUKE called attention to the fact that there had been a suggestion that the recommendations of the auditors should be referred to the Council, and this was unanimously agreed to.

THE NEXT ANNUAL MEETING.

The PRESIDENT then called upon the President-Elect, Dr. Conolly Norman, to suggest a time and place for the next annual meeting.

Dr. CONOLLY NORMAN thanked the members for the honour they had done him, and said that with regard to the place of the next annual meeting, he presumed it would be held in Dublin. The anticipation that it should be held in Dublin was the chief reason why he allowed his name to be put before them that day. July was not a convenient time, owing to the fact that Dublin was very empty towards the end of that month, and their medical friends would be out of town. He therefore suggested that it should be in May.

Dr. WOOD remarked that the annual accounts could not be prepared by May.

Dr. PERCY SMITH—The accounts are balanced up to June 30th each year. No financial business should ever come on except at the annual meeting.

Dr. WHITCOMBE directed attention to Rule I, Chap. IV. of the existing rules, which said, "The annual meeting of the Association shall be held at such time as shall in the judgment of the Council be most convenient."

Dr. WOOD—Is it not a question for the annual meeting to decide?

Dr. NORMAN—I did not think this question came before the general meeting to-day, but when you called upon me I thought it necessary to speak frankly what was in my mind. I am entirely in the hands of the Association. Any time they desire will be equally convenient to me. The consideration which moved me to suggest May was one relating to the comfort and convenience of the gentlemen coming to Dublin.

The PRESIDENT—Under these circumstances will anyone propose another place of meeting? ("No, no.")

Dr. MERCIER drew attention to the fact that the present rules state that the time and place shall be a matter to be determined by the Council, and to the Council therefore let it be relegated. It was not on the agenda, and was not a question for the annual meeting at all.

The subject then dropped, the PRESIDENT intimating that the next quarterly meeting would be held at the rooms of the Association on the third Thursday in November.

The PRESIDENT announced that the next matter was a motion standing in his name, but he thought it advisable to withdraw it. (Hear, hear.)

Dr. MERCIER said, having regard to their full programme of business—business which could only be transacted at the annual meeting—and to the fact that this could be dealt with at an ordinary meeting, he would, with the permission of the President, postpone his motion to a more convenient season. (Hear, hear.)

PROPOSED EXTENSION OF ANNUAL MEETING TO THREE DAYS.

Dr. CONOLLY NORMAN, in accordance with the notice of motion which every member of the Association had received, moved, "That in future the business to be dealt with at the annual meetings shall include discussions and the reading of papers, and that for this purpose the sittings of the annual meetings shall be prolonged for two or more days." Their Association, Dr. Norman continued, had now attained somewhat of a venerable age, and they numbered, as the General Secretary had informed him, something over 450 members. He thought, therefore, that it was time that they should endeavour to show all other Associations, and all their professional brethren generally, what work they did and what it was possible to do. At their quarterly meetings valuable papers were read and valuable discussions took place, but it had been very commonly remarked amongst members of the medical profession outside their own body that their annual meetings were deficient in any interest except a business and social one. The annual meetings took place about the same season as those of the British Medical Association, and the meetings came to be regarded as a prelude to the Psychological Section of the British Medical Association. They had obtained an age and position in which they ought to figure more prominently, and not merely as an appanage to the British Medical Association. (Hear, hear.) If they met for two or three days and discussed scientific papers, it would largely interest the younger members in their meetings, and encourage them to take part in their proceedings. No. II. of the new rules, which the speaker hoped to see adopted that day, laid down the objects of the Association. Of these objects the *third* was the promotion of good fellowship among the members, but at our annual meetings this object has hitherto come *first*. The other objects, which he submitted should be first in importance as they were in order, namely, the cultivation of science in relation to mental disease and the improvement in the treatment of the insane, could be better carried out by the adoption of this resolution. Further, it was desirable, for the welfare of the Association, to interest and enlist in its practical working the largest possible number of members. Our meetings are now so short that it is generally only possible for one representative from each asylum to be present. It is a great pity that the younger members of our staffs, who have necessarily more leisure than most of us can hope for, should not be encouraged in every possible way to advance themselves and the Association by interesting themselves in our proceedings, and bringing scientific work before us where it can be thoroughly discussed at our annual meetings. He therefore put this motion before the meeting in the earnest hope that it would be considered, and that steps would be taken to carry out the objects they had in view.

Dr. URQUHART had pleasure in seconding the motion. It had been a question of the greatest interest to him for a good many years, and in season and out of season he had preached the doctrine that Dr. Conolly Norman had set forth. He now would confine himself to seconding the motion.

Mr. RICHARDS said that though cordially endorsing Dr. Norman's proposition, they should take a little into consideration the financial aspect of this question. They had not only this excursion into the country, but also a spring trip to consider, and he ventured to say they would not leave much out of a five pound note. (Laughter.) They had two gatherings in London as well. If every member, as he was in duty bound to do, attended the meetings regularly, each at the end of the year would be £13 or £14 out of pocket. He did not say it would be a loss, because he would perhaps profit that much. But many men could not stand it. If the meetings were prolonged it would be one of the most expensive Societies in England.

Dr. NEWINGTON—With regard to the last speaker's ideas I think it necessarily follows that we shall get more scientific value for our money (hear, hear). The railway expenses will be the same for two or three as for one day. Proceeding, Dr. Newington called attention to four subjects before the Psycho-

logical Section of the British Medical Association, which he held were four main subjects which ought to have been taken up by their own Association, as they dealt chiefly with subjects for the study of which they were constituted. On reading the words of the resolution, however, he could foresee that, as it stood, it would land them in a great difficulty. How, he asked, could they carry it into practice if they adopted it? Someone would have to take action, but it did not say who. Naturally it would come before the Council, and it would be dangerous to pass a resolution of this kind if there were not some safeguard so that the Council could, if they thought fit, reject or not. He suggested that at the end of the motion the words "if necessary" be added.

Dr. OSCAR WOODS said this was a matter that had been discussed at their annual meetings. With every respect to Dr. Newington, he thought it was a matter for the Association and not the Council. If it were altered by the addition of the words "if necessary" it shelved the matter altogether. It was ripe for consideration and decision to-day. They were, unfortunately, rather scattered in their members; some of them had a long distance to come, and it would be a decided advantage if the annual meetings were extended to two days.

Dr. SPENCE—It has just occurred to me—What business will be brought forward? If it lasted for three days, and the Secretary found he had only one paper, what should we do the rest of our time?

A MEMBER—Enjoy ourselves.

Dr. WHITCOMBE said he had brought with him a programme of the Psychological Section of the British Medical Association, and that showed more work to be done in a few days when the British Medical Association met than their Association did in a whole year. He thought psychology should be taken up by psychologists, and that it should be done in their own Association. He thought the extension of their annual meetings and the discussion of papers would bring it into the right sphere.

Dr. FOX did not know that he endorsed every word that Dr. Norman had said, because it occurred to him that when their friends or envious friends said they were nothing but an ornamental Society, they forgot that at all events for the afternoon of their annual meeting they resolved themselves into a scientific Society. He most cordially supported the idea of extending their annual meetings, but he would suggest an amendment, which made the proposal rather more permissive, and left more discretion in the hands of the Council. It was—"That in future the business to be dealt with at the annual meetings *may* include the reading and discussion of papers, and that for this purpose the sittings of the annual meetings may be prolonged for two or three days at the discretion of the Council."

Dr. HACK TUKE thought this put the proposal in a form that was better than the original motion, as being more likely to be accepted. It was no doubt true that more scientific work was done at the Psychology Section of the British Medical Association than at their (the Medico-Psychological) annual meetings. But they must not lose sight of the good work done at their quarterly meetings. He thought the comparison would be in favour of their own Association, but he held that they should at their annual meetings have more papers read, and extend the time to several days. He begged to second Dr. Fox's amendment.

Dr. CONOLLY NORMAN remarked that he could not accept the amendment, because it seemed to him to leave the matter too open. One's experience was that if anything was made permissive it was never acted upon. In the proposed new Rules this permission was actually given. If they adopted these Rules to-day the permission would exist, and he was aware of that fact when he allowed this notice to remain on the paper. He thought it desirable that this matter should not be a permissive one, but that it should be settled. It was premature to settle definitely how many days the business should last under the altered circumstances, because the length of time they sat would depend upon what they had to sit upon. (Laughter.) They must know how many

papers they had before they knew how long the sitting was to last. Therefore he should prefer two or three days or longer.

The PRESIDENT read the amendment and put it to the meeting. The President declared Dr. Fox's amendment carried by a small majority.

It was then put from the chair as a substantive motion, with the following result:—For, 12; against, 16.

The PRESIDENT—I declare the amendment to be lost as a substantive motion.

Dr. FOX—As father of the amendment I challenge a division. The amendment was declared by you to be carried. It has now been put as a substantive resolution, and declared by you to be lost. I ask for a division on the substantive motion.

Dr. IRELAND—Some of the gentlemen did not hear well, and did not understand what they were voting for. It is an important point; I think it would be well to explain it.

The PRESIDENT explained that the amendment proposed that in future the business to be dealt with at the annual meetings *may* include the reading of and discussion of papers, and for this purpose the annual meetings *may* be prolonged for two or three days at the discretion of the Council.

Dr. FOX—I ask for a division.

A division was about to be taken (by standing) when

Dr. SPENCE asked if a member had not a right to propose an amendment to a substantive motion now?

The PRESIDENT—Yes.

Dr. OSCAR WOODS—I think this matter had better be brought to a final termination now. The matter has been debated fully. I propose that the meetings last two days.

Dr. NEWINGTON—That is a question we have already settled.

Dr. OSCAR WOODS—I propose now that it be two days.

Mr. RICHARDS seconded.

The PRESIDENT then put Dr. Woods' amendment, and only 9 voted in its favour. It was consequently lost. The President then put "The substantive motion of Dr. Fox." For, 20; against, 6.

THE TITLE "ROYAL."

The PRESIDENT stated that an application had been made to the Home Office for permission to prefix the title "Royal" to the name of the Medico-Psychological Association, but a letter had been received to the effect that the Home Office could not see their way to grant it.

Dr. URQUHART said it was very much to be regretted that this had fallen through, especially after the trouble Dr. Hack Tuke had taken about it. Seeing that it had definitely fallen through, he thought they should now proceed to have the Association incorporated under the Act of Parliament in the same way as the British Medical Association, so that they might hold property and generally enjoy the advantages of such incorporation.

A MEMBER—This is not on the agenda paper.

Dr. HACK TUKE said the point arose out of the recommendation of the last annual meeting. One recommendation was to prefix the word "Royal" to the name of the Association and the other was as to incorporation. One had fallen through, and the question now was whether it was the wish of the annual meeting that the second should be considered by the Council. If nothing was done to-day it would lapse, and nothing further would be done. It must be clearly understood whether the Council was to proceed on the second point.

Dr. FLETCHER BEACH explained that there was another reason why it was not put on the agenda paper, and that was because the answer arrived after it was issued. If he had not brought it before them now it would have remained in abeyance twelve months.

Dr. HACK TUKE—As a matter of form, the minutes of the annual meeting are taken as read. If they had been actually read through this business would have come before the meeting to-day in regular order.

Dr. WHITCOMBE—My recollection is that this was a matter which was referred to the Council for adoption—either that the Association should have the prefix “Royal” or it should be registered as a Limited Company.

Dr. YELLOWLEES—The Council can report to this meeting whether they think it desirable to do so or not.

The PRESIDENT—Certainly.

HANDBOOK COMMITTEE’S REPORT.

Dr. Newington presented the report of this Committee.

Dr. CLOUSTON proposed that the Handbook Committee be cordially thanked by the Association, and the motion was seconded and carried with acclamation.

SYLLABUS.

A syllabus of “Training and examination of attendants and nurses for the Certificate of Proficiency,” was handed in.

RULES COMMITTEE’S REPORT.

Dr. WHITCOMBE moved that the report of the Rules Committee be received and entered on the minutes, and that it be taken as read. Dr. Whitcombe said the report explained the action of the Committee very minutely, and he need only add, as chairman of the Committee, that the members had devoted a large amount of time to the construction of these rules, both at their meetings and in correspondence. The report pointed out the chief alterations which had been made, and had been almost unanimously adopted by the Committee.

Dr. NEWINGTON seconded the proposition.

Dr. P. W. MACDONALD (Dorchester) said that considering the revised rules only came into the hands of the members two days ago, and that there were many alterations in the former rules, he did think a little more time ought to be given to the general body of members of this Association to consider them. They all recognized the labours of the Committee, and were willing to thank them therefor. But he hardly thought the report, before many members had had time to look at it, should be forced upon them. He regretted that the chairman of that Committee did not see his way clear to allow these rules to remain open for a further time and to have a special discussion upon them hereafter. Dr. Macdonald then referred to the lack of work that was done amongst them. He admitted there was able work done, but they must try and see if there was not some way in which they could throw fresh life into the Association. He himself lived in the South of England, and always strove to attend these meetings, but it was at great personal sacrifice and at great inconvenience to other people. If they could see a way to form provincial branches and have local secretaries, he thought fresh life would be thrown into the Association and good work done. He thought this was a special point the Rules Committee ought to thresh out. He therefore moved that these rules be postponed until a future meeting of the Association and for special discussion.

Dr. TURNBULL seconded the motion.

The PRESIDENT said this was the time at which he ought to speak. To adopt these rules would be entirely inconsistent with the instructions he had received from the Council. He should call their attention to the list of members for election presently. Rule III., as proposed, said, “Ordinary members, who shall be legally qualified practitioners.” If you pass these rules this is worth *nil*. Before we endorse such an important proposal the question of female membership ought to be discussed.

Dr. HOWDEN—It is too much to ask us to decide this matter to-day. I don’t think it can do any harm if it is put off till the next meeting.

Dr. RAYNER—On a former occasion the rules were referred to a special general meeting held for the purpose.

Dr. FOX—Is any special general meeting likely to express the views of the Association so well as here? Where—north, south, east, and west—will you

find a place so central as Buxton? If you put it off will it not be necessary to postpone it for the whole year? We are going to that sister Isle where there will be much to attract, and there will be further difficulties.

Dr. NEWINGTON—A very strong and representative Committee was appointed to settle these rules, and the report shows what are the chief departures. It will be more business-like not to object to them altogether. The Committee's report points out the principal points for discussion, and it will be better to discuss those points than throw the whole thing over. It is not fair to the Committee to report to this meeting and then to that meeting, and to ask them to report again. It was not in the hands of one or two people, but in the hands of a strong Committee. With regard to Dr. Macdonald's suggestion, it is hardly a question for the Rules Committee to deal with. It should be specially dealt with by the Association on the advice of the Council, and should not be brought in by a side wind.

Dr. MERCIER—This ought to have been introduced at the last annual meeting as an instruction to the Committee.

The PRESIDENT—It has been proposed by Dr. Macdonald, and seconded by Dr. Turnbull, that the thanks of the meeting be given to the Rules Committee, and that their report be received.

Dr. MERCIER—Rule III. is the same as the old rule. All that it provides is that ordinary members shall be legally qualified medical practitioners.

Dr. PERCY SMITH pointed out that the rule expressly mentioned legally qualified medical *men*.

The PRESIDENT—Yes, *men*.

Dr. YELLOWLEES—I feel there is a debt of gratitude due to the Rules Committee. The rules are a very great improvement upon our old ones. I feel there are a number of good things in them, and on some I should like to make suggestions. The members of the Association as a whole have not had an opportunity of offering criticism. It would take the whole day to discuss them. It would be exceedingly ungracious to the Committee to delay it for a whole year. It would be most discourteous to them. (Hear, hear.) We ought to find some way in which the members of the Association should be able to lay their views before the Rules Committee, and we should also be able to consider them at a much earlier date than next year. We cannot discuss them to-day for want of time.

Dr. WHITCOMBE directed Dr. Yellowlees' attention to Rule I., Chapter V.: "New rules shall be made, and existing ones repealed and amended only at the annual meeting."

Dr. CLOSTON—After the expressions of opinion that have been made, and after the statements of fact as to members never having seen the rules, we must really adopt the suggestion that has been made. He urged Dr. Whitcombe to coincide.

Dr. WHITCOMBE—The rules I hold here I received a fortnight since. I don't understand why every member should not have had these rules in his hands at least a week. This report was prepared on the 19th of June. It has since been submitted to the whole Committee, and as soon as the Committee adopted it, it was sent to the printer in order that it should be forwarded to every member of the Association.

Dr. SPENCE thought they might very gracefully submit to the opinion of the meeting that this matter should be adjourned. When carried it should be carried unanimously. Dr. Whitcombe deserved their grateful thanks for all the hard work he had done. It would be an injustice to the Association to further press the rules on the meeting that day.

Dr. WHITCOMBE—If this meeting is adjourned for three months or longer then I would accept it, but to defer it for twelve months would be absurd. I now move that the report of the Rules Committee be adjourned to the next quarterly meeting, at which the adjournment of the annual meeting shall be held before the quarterly meeting, namely, Wednesday, November 15th.

The motion having been seconded,

Dr. MACDONALD asked why the meeting should be held the day before. Some gentlemen could not get away for two days, just as it would suit themselves. It should be fixed on the quarterly meeting day.

The PRESIDENT then put it to the vote, as follows: "That the report be adjourned to the 15th of November":—

For ...	...	...	...	...	...	...	...	10
Against ...	...	...	...	...	...	...	...	20

The PRESIDENT—Dr. Whitcombe's amendment has been negatived.

The PRESIDENT then put Dr. Macdonald's resolution, with the addition of the 16th Nov. as the date, viz.:—"That the thanks of the Association be given to the Rules Committee for the work they have done, and that their report, in view of its special importance, be remitted for consideration and fuller discussion at an adjourned meeting, on the 16th November, 1893, at 10 a.m."

Dr. TURNBULL seconded it in the modified form.

For ...	...	...	...	...	...	24
Against ...	...	...	...	...	...	3

Carried.

EDUCATIONAL COMMITTEE'S REPORT.

Dr. CLOUSTON reported that the Educational Committee had held three meetings. They drew up a report which was adopted unanimously. Though it was not necessary to read it to this meeting he would take the liberty of mentioning the gist of it. A scheme of instruction has been drawn up for the guidance of teachers in insanity; a letter has been sent to every examining body asking it to formulate a syllabus of subjects to be examined on in insanity, and offering co-operation; this offer has been accepted by the Universities of Oxford, Cambridge, Edinburgh, and St. Andrew's; the Royal Colleges of Physicians and Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons, Glasgow. The Committee has resolved to express to certain examining bodies the opinion that insanity should not be included in Medical Jurisprudence either with regard to instruction or examination.

The report was adopted.

DIETARY COMMITTEE'S REPORT.

Dr. J. A. CAMPBELL expressed the hope that they would adopt the report, and discharge the Committee.

Dr. URQUHART seconded, and it was carried.

On the motion of Dr. YELLOWLEES, the committee were cordially thanked for their report.

NOMENCLATURE OF DISEASE COMMITTEE.

Dr. WHITCOMBE moved that the report be received and entered upon the minutes.

Dr. RAYNER seconded.

Dr. YELLOWLEES objected, and moved that it be not adopted.

Dr. URQUHART seconded, and said he could not understand why the Committee had taken the trouble to invent a new classification. That of the College of Physicians was sufficient. He preferred classifying diseases according to organs of circulation, &c., and not the height at which they occur in the body, which is absurd. There was not even a place left for influenza, which had been so prevalent of late.

The PRESIDENT—The amendment is that the Committee be thanked for their report, which should not be adopted.

Dr. WHITCOMBE, replying to remarks, said that he was sorry to find that so many members of the Association did not know the nomenclature of the College of Physicians. If they had studied it they would have found that this followed it so far as it was thought desirable. A question had been asked in the House of Commons some two years ago relating to the causes of death in

asylums, and the Commissioners requested him, when he had the honour to represent them as President, to bring the matter before the Association. He did so, and they sanctioned the appointment of a small Committee to consider this question. He had a letter before him from a member of the Commissioners' Board, in which he expressed their gratitude that this had been done.

Dr. SAVAGE remarked that it was true the nomenclature was not perfect; they had done their best. All he could say was if they did not like it let them not use it. He declined to have anything more to do with it.

Dr. MACDONALD—If it follows so closely upon the lines of the nomenclature of the College of Physicians, what use is it? It is very well to receive it, but it must not go forth that we adopt it as the classification of this Association.

Dr. YELLOWLEES—My opinion is that the report should be remitted to the Committee. If they don't wish to have anything to do with it let it be so. We are very much obliged to them for their trouble. I have no doubt they have done their best, but we are not obliged to accept it.

Dr. SAVAGE—It was considered best to follow, mainly, the lines of the College of Physicians. It seems to me that the feeling of the Association is rather that they should wait for two years, when the College will issue a revised nomenclature, and then reconsider it.

It was then put to the meeting that the Committee be thanked for their report, and the motion was carried unanimously.

ROOMS IN LONDON.

The PRESIDENT informed the Association that rooms had been arranged for at 11, Chandos Street, Cavendish Square, London, for the use of the Association.

The SECRETARY, Dr. Fletcher Beach, stated the terms as follows:—Until the completion of the alterations about to be carried out on the ground floor of the Medical Society's premises, the Association has the temporary use of one of the book-cases at the rental of £1 per annum, and the use of the library for Council meetings at one guinea per meeting, and of the large meeting room for ordinary meetings at two guineas per afternoon. These terms to include the right of using the Medical Society's rooms as the official address of the Association, as well as permitting the Hon. Secretary to make occasional use of the library for the purpose of conducting his official correspondence.

The PRESIDENT proposed a vote of thanks to the Governors of Bethlem Hospital for the use of the Board Room for the meetings held by the Association there for so many years.

Carried unanimously.

THE ADMISSION OF LADY MEMBERS TO THE ASSOCIATION.

The meeting then proceeded to the election of ordinary members, a list containing the names of whom was before the Association.

The PRESIDENT, in introducing the subject, said—I have been instructed by the Council to draw your attention to a name on this list. It is number seven; she is a woman, and is M.B., B.Ch. Royal University of Ireland, and Clinical Assistant at the Richmond District Asylum, Dublin. The Council thought that your attention should be drawn to this, because it opens out the very important question of female membership, a question which the Council think should be fairly placed before the Association, and that you should come to some decision to-day, if possible, before balloting for the whole of the members. If you wish to ballot for the whole of the members after I have explained and drawn your attention to this name, then, of course, the matter is in the hands of the Association. It is an innovation, a revolution.

Dr. RAYNER rose to support the election of lady members.

Dr. IRELAND—It is of considerable importance and it is very singular that this name was put down here without the knowledge or the consent of the Council, and without any intimation that this was a woman at all (laughter.) I belong to the old school, and was astonished at this proposal. I was in doubt,

and I inquired whether it was a female or a male name. This is promoted by someone, there is no doubt, and perhaps by the same party who changed the word "men" into "practitioners." Those who did so should come here and tell us how it was done in this manner.

Dr. J. A. CAMPBELL—Is the list in accordance with the rules?

The PRESIDENT—A lady is ineligible, according to the present rules.

Dr. J. A. CAMPBELL—Might I ask the Council why they have done this?

The SECRETARY—I am the guilty party. The Secretary has no power to refuse the name of any person duly sent in and supported. This was sent in, and I thought I could not refuse it.

Dr. MERCIER—Suppose the name of a convict had been sent in?

Mr. RICHARDS—The Secretary should have consulted the Council. It looks as if this lady was about to be elected in a hole-and-corner way.

Dr. CONOLLY NORMAN said Dr. Mercier had spoken about the possibility of nominating a convict. Supposing they discussed that for a moment. A convict would not be a legally qualified practitioner, and therefore was not eligible, but they could not refuse until the Medical Council had struck his name off the roll. The speaker was a member of the Rules Committee, and at that Committee had raised this question, and had been then reminded of recent legislation by which it was decided that the words "man" and "men," "he" and "his," when used in a general sense had been held to include members of both sexes. He submitted that this applied to the present case, and that therefore under their present rules women were eligible. He nominated the lady whose name came before them that day on the list, and he begged to assure the Association that he had no intention whatever of doing anything in a hole-and-corner way. He thought that when a name went forward to the Secretary in the usual manner, and, as he understood and still believed, legally, and that when it was printed as it was on the paper, every member would have sufficient intimation of the fact. Now he was inclined to ask the Association to accept this name as it appeared on the list, not wishing to have the matter decided in a personal way, but the reverse. He was of the decided opinion that women should be admitted to their Association. They could not exclude them from their profession; that was out of their power. Why, then, try to exclude them from that Association? He failed to see any object in excluding them. It would be said that they feared women meeting them on equal grounds. Why should they? The female graduates whom the speaker had met were decidedly superior to the average of male graduates, but just because he was not one of those who thought our sex have anything to fear from the competition of women he was of opinion that women ought to have everything open to them. If it is said that women are unfit to compete with men in our profession, that is a more general question, but that has been already decided for us. We had already women in our asylums as medical officers, and the lady whose name appeared on the paper was a paid official in a public lunatic asylum. There was also at the present time a female medical officer in the Holloway Asylum. There was only one argument upon the subject worth considering. Supposing females were members of the Association, and appeared at their meetings, they might hamper their discussions upon subjects of a certain class. Dr. Norman pointed out that many members of the Association were now teachers. Most of these, like himself, had had to teach women and no doubt all would have to do so before long. Would they refuse pupils on account of their sex? He could say from personal knowledge that at the meetings of the various sections (anatomical, surgical, pathological, medical and obstetrical) of the Academy of Medicine in Ireland female graduates and students were constantly present, and no difficulty arose. Every subject brought forward was discussed with the same scientific freedom as before. What objections there might have been had long since passed away. Therefore, if in order, he would move "that women shall be eligible for election into their Association." He maintained, in conclusion, that the word "man," as used in the rules, in law included "women."

Dr. YELLOWLEES seconded.

Dr. FOX asked the President for an interpretation of the rules, and whether the term "medical man" admitted of a more extensive interpretation than the one generally assigned to it?

Dr. CLOUSTON said, in advance, he could not accept the ruling of the Chairman on this point.

Dr. HOLMES moved that this name be taken separately from the others. He held a peculiar position. He had had the privilege of studying anatomy and dissecting in the same room as female students, and looking back dispassionately he could not but feel well towards those ladies. They must march with the advance of the ideas of the present generation. Ladies were about to become members of the British Medical Association. He thought lady practitioners would be an acquisition to their body.

Dr. FOX said Dr. Norman brought forward an abstract resolution that ladies be members. Let them decide whether ladies were admissible, first of all.

The PRESIDENT—Is it your wish that we first vote on the female applicant?

Dr. BENHAM—Would it not be well if the lady's name came up when the new rules have been passed?

Dr. MACDONALD—Dr. Clouston has declined to take the President's interpretation. If so, who is going to decide?

Dr. CLOUSTON—With the utmost respect for the President I would say that the interpretation of the rule must be by the vote of this meeting, and not by the *ipse dixit* of the Chairman.

Dr. OSCAR WOODS said the main question to decide in the first instance was whether ladies should be admitted to the Association or not. He thought they would be by a very large majority.

Dr. IRELAND—I am prepared to second the proposal that this matter should be considered at the special meeting when we consider the rules. As Dr. Norman has not given notice of his motion I ask, is it legal to spring a motion upon us of which he has given no notice whatever, and which has never appeared on the agenda?

Dr. SPENCE—With the view of shortening this discussion I propose that the rule in which the word "men" is mentioned include "women" as well.

Dr. CLOUSTON seconded.

Dr. IRELAND—I said I would second the amendment that it should be deferred to a special meeting. We should have more time to discuss it.

The PRESIDENT—No one has seconded Dr. Norman's proposition so far as I know.

Dr. URQUHART—What is the motion? How can it come before this meeting without a notice of motion. I really must protest against receiving it. I think it is most irregular. (Hear, hear.)

Dr. FOX—I have heard this question described as a revolution. Is it a revolution greater than a motion put before us out of order and without any notice?

The PRESIDENT—The proposition is that the word "men" (Clause III., Chapter I.) does include women. It has been proposed and seconded.

Dr. URQUHART again protested against its reception.

The PRESIDENT—Is it to be received or not before being voted upon? (Cries of "No" and "Yes.")

Dr. YELLOWLEES—The Council definitely asks us to consider the general principle before we give our vote, and, therefore, it is before the meeting.

Dr. WHITCOMBE—I don't think any member of the Association has pointed out the fact that you already have a lady member holding the certificate of this Association.

Dr. URQUHART—She is not a "member."

Dr. WHITCOMBE—A lady "doctor," then. I think if this Association will admit a lady to the examinations for its certificate the very smallest thing it can do is to elect a lady as a member. This question has been mooted, and has been discussed years ago in all our Associations and Societies, and in early years

ladies were thrown out ignominiously, but in later years ladies have been received into the folds of Medical Associations.

Dr. URQUHART—I move the previous question.

Dr. BENHAM—I move that the question of the admission of female members be considered at the next annual meeting. I am inclined to vote for their admission eventually, but not at this meeting. At this late hour this important question should not be sprung upon us.

Dr. HOWDEN—It has been proposed by Dr. Norman, and seconded by Dr. Yellowlees, that ladies are eligible as being included under men. I move an amendment "That according to the present rules women are not eligible as members of the Association without a vote of the Association has settled that matter."

Dr. BENHAM—I withdraw my motion, and second Dr. Howden's.

Drs. NORMAN and CLOUSTON also withdrew their motion in favour of Dr. Spence's.

The PRESIDENT—It is proposed by Dr. Howden, and seconded by Dr. Benham, that according to the rules of the Association women are not eligible. The other is by Dr. Spence, seconded by Dr. Clouston, that the term "men," as in Clause III., Chapter I., *does* include women.

After the voting the President declared Dr. Howden's amendment was carried and became a substantive motion by 26 against 16.

Dr. HACK TUKE—I hope it will be clearly understood that this result is not what we wish, but merely what we consider to be the interpretation of the present rule (hear, hear.)

Dr. URQUHART—It is a victory for good grammar.

The PRESIDENT—We will now proceed to the ballot for the election of "men" (laughter).

ELECTION OF ORDINARY MEMBERS.

The following candidates for ordinary membership were then unanimously elected:—

John Milne Bramwell, M.B., C.M.Edin., 2, Henrietta Street, Cavendish Square, W.

William Henry Bowes, M.D.Lond., Assistant Medical Officer, Plymouth Borough Asylum, Ivybridge, Devon.

Gerald Herbert Johnston, L.R.C.P. and S.Edin., Assistant Medical Officer, North Riding Asylum, Clifton, York.

Herbert Warren Kershaw, M.R.C.S.Eng., L.R.C.P.Lond., Senior Assistant Medical Officer, North Riding Asylum, Clifton, York.

John Newington, L.S.A., Tattlebury House, Goudhurst, Kent.

John Mills, M.B., B.Ch., and Diplomat in Mental Diseases, Royal University of Ireland, Assistant Medical Officer, District Asylum, Ballinasloe.

William Rawes, M.B.Durh., F.R.C.S.Eng., Assistant Medical Officer, St. Luke's Hospital, London.

Henry Blake, M.B.Lond., Stone House, Great Yarmouth.

Frank Perceval, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer County Asylum, Prestwich, Manchester.

William St. Clair Symmers, M.B., C.M.Aber., Pathologist, County Asylum, Prestwich, Manchester.

MOTION BY DR. J. A. CAMPBELL.

Dr. J. A. CAMPBELL, Carlisle, submitted the annexed resolution, by special leave of the President and Council, it not being on the agenda:—"That the Medico-Psychological Association of Great Britain and Ireland are unanimously of opinion that the grant of 4s. a week at present given to Boards of Guardians to pay for pauper lunatics in County Asylums, Registered Hospitals, and Licensed Houses should also be given for pauper lunatics (*i.e.*, 'Dements' and

'Imbeciles') in Workhouse Wards, or boarded out, if kept to the satisfaction of the Commissioners in Lunacy: this has been done in Scotland since 1874."

Dr. NEWINGTON seconded.

Dr. OSCAR WOODS asked them not to pass it in a hurry. The Government had given a certain sum as a contribution for lunatics, and he took it that if that resolution was passed the paupers in the asylums would not get the 4s. per head. If distributed over the asylums they would have got 3s. 6d.

Dr. J. A. CAMPBELL—It only refers to England and Wales.

Dr. CLOUSTON—In Scotland the rule applies. At the present time every pauper lunatic receives a certain proportion to help for his board, from the Government. I can speak for every Scotch member, and say it is a great boon.

Dr. WHITCOMBE suggested to Dr. Campbell the advisability of bringing the matter up at the next quarterly meeting.

Dr. J. A. CAMPBELL—The committee has sent out notice to every committee in England, to Boards of Guardians, to the Local Government Board, and also to the Commissioners in Lunacy. This was the time to act if they were to act at all. The Lancashire Boards were also taking steps in the same direction. That was his reason for specially bringing the matter before them that day.

Dr. SPENCE—I should regret if this Association should pass the resolution that has been presented by Dr. Campbell.

Dr. FOX doubted whether the Guardians would understand it as they understood it.

Dr. WHITCOMBE—It has been sprung upon us without notice.

Dr. CAMPBELL—It has not. The matter was before the Council this morning.

Dr. OSCAR WOODS seconded the motion.

The PRESIDENT then put it to the meeting whether the subject should be deferred to the next quarterly meeting, and declared it carried "nearly unanimously" that it should be so.

THE AFTERNOON MEETING.

HONOURS.

The PRESIDENT, on the meeting reassembling, announced that Dr. Campbell, Assistant Medical Officer Rainhill Asylum, Lancashire, had been awarded the bronze medal and prize of ten guineas of the Association (applause), and the second essay was so good and so near the first that the Council recommended that a prize of five guineas be awarded to Dr. Goodall, of the West Riding Asylum, Wakefield. (Applause.)

GENERAL INDEX.

The PRESIDENT next announced the presentation to the Association of a continuation of Dr. Blandford's Index to the "Journal of Mental Science," kindly prepared by Dr. Rayner.

A cordial vote of thanks was accorded Dr. Rayner, on the motion of Dr. CLOUSTON, seconded by Dr. J. A. CAMPBELL.

VOTES OF THANKS.

Votes of thanks were then passed to the President, Secretaries, the Editors, Auditors, Treasurer, and Registrar.

THE PRESIDENT'S ADDRESS.

The PRESIDENT informed the meeting that the only business that remained was for him to deliver his Address. (See Original Articles.)

Dr. BAKER proposed a vote of thanks to the President for his very interesting and instructive Address.

Dr. CONOLLY NORMAN seconded the proposition, and said that the Address had covered such an amount of ground that no one member could discuss the several points in the time at their disposal. But there were one or two points upon which he should like to say a word or two. The suggestions the President had made were very practical and suitable for them to consider and take action upon. He had spoken about the provincial members, who, in some degree, felt themselves excluded from the full working of the Association. With fact that did honour to his position as President, he mentioned the burning question of the supposed representative shortcomings of the Council in a merely casual manner. In Dr. Norman's opinion the difficulty about interesting provincial members in their Association was of more importance than their mere election on the Council. No Association could be ruled by people who did not take an interest in its work. So long as provincial members did not take a personal interest in their meetings they could not rise to official standing. Dr. Lindsay had spoken about what might be called the short service system in asylums, and undoubtedly the longer one looked at the question of asylum service—using the word in its larger sense—the greater did the difficulty become of seeing how something approaching a short service system could be avoided. Take the case of asylum attendants. He thought the feeling was very general that an attendant lost value when he had served longer than a certain time; if he exceeded that time he became useless for anything else. Therefore there was the dilemma of either doing a wrong to the institution by retaining persons who were no longer at their best, or of doing an injustice to attendants by dismissing them when they had overstood their market for obtaining other employment. It would be better, he thought, if attendants were engaged on the understanding that they were to remain a limited number of years, say three years if not promoted, five years if they got up a step, and seven years if they got up another step. Some such thing as that was bound to come eventually. Then as to the long hours. The President spoke sympathetically of their attendants. When an accident happened and a man stated that he had been fourteen hours on duty, he surely had reason on his side. This question was certain to be brought forward sooner or later by the attendants themselves, or by someone speaking for them; and he thought it would be a pity if the Association did not give an expression of their own opinion beforehand. It was their duty and privilege to try and lead public opinion in such matters as that, though their voice might long be as that of one crying in the wilderness. With regard to female assistants, it would be unkind to take up the time of the members after having spoken so much on this subject earlier in the day, but he had tried the experiment, and had satisfied himself that medical women could be of use in asylums, and could exercise a very beneficial effect upon the staff, and an effect that was not otherwise to be obtained upon female patients. The President had spoken of the very wonderful system that existed in this country—very wonderful to all of them who, like the speaker, were foreigners (laughter)—of having asylums visited by barristers, and by commissioners who hunted in couples. At the bottom of all that lay the imputation which the legal profession was so fond of making against the medical profession, if not directly, by insinuation, that they were all rogues. The medical commissioner could not, forsooth, visit an asylum without a lawyer to look after him; one official could not be trusted to visit an asylum unless another accompanied him to see that he did his work! They were wanting to themselves in not protesting against all this. Again, it was a monstrous provision that when lunacy certificates were signed by two medical men each must see the patient alone. Yet where is consultation more desirable than when two general practitioners consign a patient to an asylum or what better safeguard against error than free

consultation? What does the provision mean? That the lawyers cannot trust our profession. Is it possible that two respectable professional men, be they doctors or lawyers even, cannot meet and consult without perpetrating a fraud? The President had also referred to the action of the London County Council in several other matters, but he did not think that he spoke of their action in regard to the advancement of pathological study. It must be said that the action of the London County Council in this respect was in the highest degree generous and enlightened. As they were talking about their Association and its shortcomings, and what it could do, it was, he said, a reproach to them that this kind of thing was not more forcibly advocated by the Association. Individual members had done a great work in pathology, but he did not know that their Association had ever spoken collectively, and claimed as a right what the London County Council had done. There was the body that ought to have initiated this movement. If they were to speak more courageously on such matters they would get listened to, perhaps, where they hardly now dared hope for a hearing. If they agitated vigorously and claimed as matters of right recognition of their position as scientific teachers and workers, encouragement and facilities for scientific work, high qualifications for their medical assistants, a suitable proportion of trained nurses among their staff, and if they urged the just claims of all workers among the insane to liberal pay and competent pension—they would not only perform their duty as an Association, but they would raise themselves immensely in the estimation of the public, and he firmly believed they would obtain such a success as would surprise them.

Mr. RICHARDS supported the resolution, and he had a special reason for doing so. Dr. Lindsay, who had given that most interesting and exhaustive Address, was his old master some 25 years ago. It was his good fortune to be his assistant, and he instilled into him the routine work as to ensure his future success. It was owing to that in a great measure that he got on so well with his committee and also the London County Council. It showed that the opinions he held then were well founded, and now they were still more matured. As regarded the London County Council he endorsed what the President had said. He believed it rested with the medical superintendents to get anything done that was reasonable and calculated to benefit the patients of an institution. Now was the time for them to strike.

The proposition was unanimously carried, and

The PRESIDENT, in reply, thanked them, and assured the members that whatever he could do for the Association he would gladly do.

Dr. J. A. CAMPBELL—You must suggest that we take some action with regard to what has been said about pensions. I think that it reads most judiciously and most candidly. I move that we thank the Commissioners for those remarks of two years ago.

Dr. MACDONALD seconded.

The business then concluded, and the members paid a visit to the Devonshire Hospital and the Baths.

In the evening the members and friends dined together at the Palace Hotel, Buxton.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

PSYCHOLOGY SECTION.

Newcastle, August, 1893.

President—Dr. T. W. MACDOWALL.*Vice-Presidents* { Dr. URQUHART,
Dr. CONOLLY NORMAN.*Secretaries* { Dr. CALLCOTT,
Dr. ROBERT JONES.

The PRESIDENT chose a highly important and practical subject—the working of the County Councils in the management of asylums established by the Local Government Act of 1888. It was not, he observed, his intention to refer to that unhappy piece of legislation, the Lunacy Act of 1890; it has been torn to pieces and trodden under foot, but unfortunately we cannot get rid of it, and must carry out all our official work under its vexatious requirements. He well remembered the time when the proposed Local Government Bill was dreaded by asylum superintendents. These dreaded evils were very clearly expressed by Dr. Needham in his Presidential Address to the Medico-Psychological Association in 1887. Dr. McDowall quotes some of Dr. Needham's expressions, and the rest of the Address mainly consists of replies from superintendents to his questions as to their practical experience of County Councils. There is, of course, a diversity of sentiments, but it is satisfactory to find that the general testimony is distinctly favourable to the new masters. Some superintendents—little to their credit—refused to reply to the inquiries; a few of the excuses appeared inadequate and trivial; others had not even the courtesy to acknowledge the communication. Speaking for himself, the President said, "My experience is this—and it is not singular—that the members of these new Boards are most anxious to do their work to the very best of their ability, to meet the modern requirements for the care of the insane, and to treat those in office with every consideration." In conclusion, the President gave it as his message to all asylum men to lead committees along the path of progress, and to prevent them falling into the mistake committed by their predecessors of want of enterprise.

The Address cannot be too highly praised for its opportuneness, its lofty sentiments, and for its enforcement of the truth that if superintendents of asylums do *their* duty, County Councils will do theirs.

Dr. NEWINGTON moved a vote of thanks to the President for his Address, and congratulated him on taking so broad and favourable a view of the changes in asylum government. Speaking as a member of the Sussex County Council, he maintained that nothing but desire to do the work well animated them. He pointed out that the labourers and artisans had to be taken into account. When they remembered that the inmates of asylums were drawn from these classes it would be quite certain that inefficient management of asylums would be speedily amended if and when the voters recognized their power. Then, if this were true, and if they allowed, as they must, that what was good for the patients would be good in the long run for both the asylum staff and the rate-payers, the change in asylum government could not but work good. He further pointed out that, though good committees of justices used to be in the majority, yet there were others that could not be said to have done their work satisfactorily; but these were quite irremovable under the old system, now, however, it was quite easy to effect a change in the governing body.

Dr. MURRAY LINDSAY very cordially seconded the vote of thanks to the President for his very comprehensive, suggestive, and instructive Address. Dr.

Lindsay on the whole endorsed the general conclusions arrived at by the President after a lengthened experience. That County Councils were now taking a comprehensive grasp, an enlightened and liberal view of their new duties with regard to the management of asylums and the position of the staff, there could be no doubt, and they were zealously improving asylums and doing what they could to benefit the insane, whilst not forgetting the interests of the staff of asylums in the matter of pay, pension, and leave. It was to be expected that at first some experience and lubrication would be necessary before the new machine could work smoothly, but now much hard and really good work was being done by asylum committees. Whilst admitting this, he still believed that the process of education in asylum matters was not yet complete, and that there was room for improvement. It must be acknowledged that our county asylums had been and were being improved under the *régime* of County Councils, a *régime* which would unquestionably confer greater benefits upon the insane and upon the administration of asylums. Derbyshire was especially fortunate in having an excellent County Council, and equally fortunate in having a hard-working Asylum Committee, who were endeavouring to advance and keep abreast of the times.

THE ALLEGED INCREASE OF INSANITY.

Dr. HACK TUKE, in introducing for discussion the alleged increase of insanity, gave the reasons brought forward by those who maintained this view, and also the reasons advanced by those who denied the increased liability to insanity while obliged to admit the great increase in the number of the insane. He brought before the Section a number of statistics in order to assist it in arriving at a conclusion. These covered the period which had elapsed since 1870. If the figures alone were regarded, he admitted that they no doubt presented a somewhat alarming picture; but he asked whether there were not circumstances which might partially or altogether account for this increase in numbers. Dr. Tuke summarized his own conclusions as follows:—(1) There has undoubtedly been since 1870 a large increase in the number of patients in asylums and workhouses, but more in the former than the latter. (2) There has not been so great, but still a considerable, rise in the *admissions* of patients into asylums during the same period, after deducting transfers and readmissions. (3) The advance in the number in detention holds good after allowing for the increase in population, but does not prove the increased liability of the community to insanity, seeing that there is a vast accumulation due to a lower death-rate (even since 1870), the chronicity of the disease, and its lamentable tendency to relapse. (4) Nor does the advance in admissions prove increased liability to insanity, as (a) the value and comfort of asylums are increasingly appreciated, (b) there has been a very large number of patients drafted from workhouses to asylums, and (c) there has been an ever-increasing encroachment on the mass of unregistered lunacy which the census shows to exist. (5) The increase in numbers of the insane has taken place among the poorer rather than the well-to-do classes of society. While, however, Dr. Tuke did not accept lunacy figures as conclusive proof that insanity was on the increase, he lamented the undoubted fact that it had not decreased, in spite of all the efforts of physicians and social reformers to improve the condition of the race. This was the important lesson to take to heart.

Dr. CAMPBELL (Carlisle) observed that in his opinion the 4s. grant originally given in 1874 to pauper lunatic patients in county asylums caused a very great increase in the admissions to public asylums. The admission-rate in 1875 rose immensely at once. Mr. Corbet showed, in his paper in the January number of the "Fortnightly," that the ratio per 1,000 lunatics had increased from 1·81 to 3·11 in the last thirty years, but there could be no doubt at all that the nominal registered increase was much greater than the actual. The 4s. grant had had much to do with that. Dr. Maudsley, in an able paper in the "Journal of Mental Science" for April, 1877, stated that "the Conservative Government had practi-

cally offered a premium to parochial authorities for every patient they could, by hook or crook, send into asylums; that shortly the race of sane paupers would disappear, as had been the case as regards wolves in England when a premium per head was offered for their extermination." Now his forecast had been found correct. Sane paupers had largely decreased; pauper lunatics had hugely increased since 1874. We should most undoubtedly do all in our power to get this 4s. grant given, as in Scotland, to such insane as were fit for work-house treatment or were boarded with relatives or others, provided they were kept to the satisfaction of the Commissioners in Lunacy. This was a matter of very great importance. In some asylums the accumulation of chronic cases was much less than others; at Carlisle, for instance, during the last ten years 1,500 odd pauper patients had been taken in, and yet the increase had only been 56 in the time.

Dr. MERSON said that a comparison of the ratio of existing lunatics to the general population over a series of years would show that though the ratio has been and was still increasing, yet the yearly increment was gradually diminishing, and it seemed a fair inference that it was due to special and temporary causes, and would ultimately vanish, and that, in fact, the ratio of lunatics to population was slowly tending towards a constant quantity. In the ten years from 1859 to 1869 the ratio of lunatics increased by 512 per million, while in the two subsequent decades it was only 361 and 212 respectively. Comparing this with the increase in the rate of admissions into asylums, which may be taken as roughly representing the proportion of freshly occurring cases among the population at large, it would be seen that the slight increase in this ratio did not warrant the inference that the increase in the ratio of lunatics to population was in any appreciable degree due to the occurrence of fresh cases. The slight increase observed from time to time in the admission rate appeared to be fully accounted for by the operation of the lunacy laws and the various changes that had from time to time been made leading to a more energetic action or an extension of the scope of their operations. After careful consideration of the circumstances, he had come to the conclusion that the increased ratio of lunatics to population was due mainly to accumulation of chronic cases in pauper asylums; that this tendency to increase had now reached its maximum effect, and was diminishing; that the ratio tended to become constant, and that there was no material increase in the number of freshly recurring cases among the population at large.

Mr. PEEKE RICHARDS thought that the statistics regarding lunatics were fallacious from the fact that there were so many patients who were not registered (single patients, etc.). Any facts, therefore, that were deduced from the returns issued were erroneous as to lunacy as a whole, as there were, as was well known, so many insane individuals of whom no statistical notice was taken. On other grounds he disputed the alleged increase of insanity.

Dr. EASTWOOD said that the increase of longevity was an important factor in keeping up the number of patients. Only this year two patients had died under his own care, one of whom was resident in his house for thirty-two years and another more than forty years. Last year another patient died after being a patient nearly fifty years.

Dr. HOWDEN directed attention to the change in the nature of employment of the working classes as an important factor in the apparent increase of insanity, or, rather, the increase of the number of lunatics sent to asylums. He referred to the change from home manual labour to the employment of machinery in public work; for example, fifty or sixty years ago handloom weaving and small farms or crofts permitted the relatives to attend to their weak-minded relatives while pursuing their occupations at home, whereas when they had to work at spinning mills or as servants on large farms they were compelled to send their insane or imbecile relatives to asylums. This change in employment was still going on; the absorption of manual labour by machinery was still going on; shoemakers, tailors, and other old-fashioned trades were almost

extinct, and, so long as this change continued, there would probably be a slight increase in the number of persons sent to asylums. Possibly, if the "three acres and a cow" experiment were carried out, the apparent increase of insanity might be partially arrested, but the inevitable change in modes of employment which goes on in spite of theories must be faced, and the inevitable increase in the number of insane persons sent to lunatic asylums accepted, although it was no proof of the alleged greater liability of the population to insanity.

Dr. HOLMES, when he first engaged in general practice, found a much greater reluctance on the part of the friends to place their insane relatives in asylums. Now, however, they looked upon them as hospitals for the cure of the insane, and were, therefore, more willing to place them under proper care. During the last twenty-three years the apparent increase had been 5.3 per 10,000 of the population; during the last ten years it had been 1.2 per 10,000 of the population. This large increase might well be due to better care and the greater willingness of the friends to send their relatives to the asylums.

Dr. YELLOWLEES confirmed Dr. Howden's explanation of the apparent increase of the insane.

The PRESIDENT confessed himself unable to master statistics.

Dr. CAMPBELL supplemented his former remarks by adding three factors of insanity, which he had omitted to mention: (1) The standard both of sanity and insanity had altered much of late years; people were now certified as lunatics who long ago never would have been sent to asylums. (2) Old people suffering from simple dotage were now sent to asylums in much greater numbers than formerly; at the Carlisle Asylum two per cent. of the admissions during the ten years ending 1872 were above 70 years of age, four per cent. during the next ten years, and six per cent. during the ten years ending 1892. Now this was a vast increase; such old people could not be expected to get well; they would accumulate and use up the accommodation. (3) Trade depressions or booms in trade also had a great effect; for instance, Cumberland, which was only some twenty miles from Ireland, was during prosperous times flooded by uneducated and uneducable Irishmen, who never had been accustomed to high wages, and who, when they got high wages, had not the sense to use their money judiciously.

Dr. TUKE, in reply, said he agreed with Dr. Campbell that the 4s. grant partly caused the rise of the numbers in asylums, and that it ought to be extended to workhouses. At the same time, it would not account for the increase during the last five years as compared with the previous quinquennium. With regard to Mr. Richards's remarks on statistics, he would say that those who, like Mr. Corbet, hold that there had been an alarming increase in insanity, rested their contention on the Blue Books, and, therefore, he could not ignore them. Dr. Tuke, in conclusion, said that he was not prepared to deny that there might have been some increase in occurring insanity; but, on the other hand, he was unable to admit that statistics proved it.

CURRENT OPINION ON PSYCHOLOGICAL QUESTIONS IN GERMANY.

Dr. URQUHART read a paper which gave a rapid survey of the field of psychological medicine from the German point of view. The subjects touched on more specially were university teaching and clinics, the treatment of habitual drunkards and criminal lunatics, and the general attitude in reference to management of acute and difficult cases.

The paper will appear *in extenso* in the "Journal of Mental Science."

TREPHINING FOLLOWED BY DRAINAGE OF THE SUBARACHNOID SPACE IN GENERAL PARALYSIS OF THE INSANE.

Dr. EDWIN GOODALL (West Riding Asylum, Wakefield) remarked upon the disfavour with which the operation of trephining in general paralysis of the insane (introduced by Dr. Clay Shaw) was regarded by many alienists, and submitted that a study of the cerebral cortex in that disease afforded justification for this procedure, supplemented by drainage of the subarachnoid space.

Dr. W. W. IRELAND held that in operations upon the cranium there should be some definite lesion to cut down upon and remove; but general paralysis was a disease which implicated not only the brain but the whole nervous system, and hence improvement from such a simple operation as puncturing the skull could scarcely be expected.

Dr. GEORGE M. ROBERTSON referred to the possible advantage which might follow the drainage of the subarachnoid space of the spinal cord.

Dr. GOODALL, in reply, desired to say that in operating he had proceeded on a distinct scientific theory, which itself was based on microscopical examination of specimens. He agreed with Dr. Robertson that in future cases it would be desirable to consider the question of draining the subarachnoid space of the spinal cord.

CLAUSTROPHOBIA.

Dr. HARRY CAMPBELL (London) contributed an interesting paper on this form of mental trouble, which we hope to publish in this Journal.

THE MENTAL SYMPTOMS OF MYXEDEMA AND THE EFFECT ON THEM OF THE THYROID TREATMENT.

Dr. CLOUSTON's valuable paper will appear in a subsequent number of this Journal.

DETACHED HOSPITALS IN CONNECTION WITH ASYLUMS.

Dr. CLOUSTON, in opening the discussion, said that in the course of the evolution of the modern asylum for the insane, the latest idea was what might be called the "hospital" idea. He claimed as the result of now over fifteen years' experience of the system that it had the following advantages: (1) That in these hospitals the diet could be made very varied, and the routine of the asylum dietary set aside; they had their own kitchens. (2) That the nursing is more special and more efficient, and the staff of nurses much more numerous. (3) There is the absence of asylum discipline and routine. (4) That as all the patients there are curable, or need individual nursing and care, it raises the medical and nursing standard for the whole asylum, so the doctors are, while in the hospital, medical men rather than administrators. (5) They form admirable training schools for the new nursing staff, a very important matter. All the new nursing staff at Morningside are sent there at least three months first, and so get the notion of nursing patients, rather the "keeper" idea. (6) The detachment of the buildings gives distinctiveness of use. They help the doctor to idealize his work to some extent. He advocated great variety of accommodation in each hospital—namely, dormitory day rooms, dormitories proper, day rooms proper, small three-bedded rooms, and single rooms, and that the hospital should be one-storeyed. He believed the movement had done good to the insane, and formed a part of that great and philanthropic advance in their treatment which had begun 100 years ago.

Dr. WALLIS then contributed a paper, and advocated the separate treatment of recent acute and curable cases, his contention being that in all asylums, and especially in large asylums, detached hospitals for the treatment of recent and curable cases should be provided. Dr. Wallis has promised to send his very practical and valuable paper to the "Journal of Mental Science."

Dr. HOWDEN said that the Montrose detached Hospital was in most respects independent of the asylum. It was not intended to treat acute mental cases in the hospital, and experiments in this direction had not proved satisfactory, though he placed any patient in it who, he thought, might be better treated there than in the asylum proper. In working he had found the hospital a great success. He had no medical officer resident in the building. Being so near, and in telephonic connection with all parts of the asylum, he did not consider this necessary. The matron of the asylum had the supervision of the female department and of the cook-house-keeper, and both male and female departments were under the immediate

charge of trained nurses. The plans which Dr. Wallis had shown in connection with the Whittingham Asylum were for a different class of cases, and could not be contrasted with the Montrose Hospital, but the new hospital just opened at Larbert was almost an exact counterpart of Montrose, and he doubted if it would be found suitable for the treatment of acute mental cases. Detached blocks for the treatment of certain classes of cases were, of course, no novelty. The West House of the Royal Edinburgh Asylum had originally a separate building attached to it for the treatment of acute cases, and about 1856 a second block of the same nature was erected. These blocks did not prove satisfactory for the treatment of acute cases, and Dr. Clouston had them adapted for the reception of sick and infirm patients. In the new Montrose Asylum, built in 1857, there was no adequate provision made for the physically sick, and the hospital erected in 1889 was to supply this deficiency. It was not found possible to provide suitable wards in connection with the main building, therefore a separate hospital was erected for 100 patients (a fifth of the entire population) entirely detached.

Mr. PEEKE RICHARDS thought that a separate hospital, although right in theory, was quite impracticable. There were so many patients who were maniacal, excited, and noisy, but who were exceedingly ill and ought to be in an infirmary, but yet from their propensities were quite unfit to be placed amongst the more quiet sick. In order to carry out Dr. Clouston's suggestion, two kinds of hospitals—one for the purely sick, and an intermediate one for the noisy and excitable sick—would be required.

Dr. CAMPBELL CLARK said there could be no question that the future development of asylum nursing required an increase of the nursing staff. If there were nurses' and attendants' homes, as had been planned for the new Lanark County Asylum at Hentwood, the nurses and attendants could not all be drawn from the dormitories unless the night staff were increased. The increase of the night staff, with a night superintendent, would give more efficient nursing, do away with all necessity for tell-tale clocks, and solve in some measure the difficult question of the reduction of the hours of duty for day nurses.

Dr. URQUHART spoke of the results of his experience in the Perth Royal Asylum, where hospital wards had been designed and built, but not entirely separated from the main building. That arrangement was found necessary in the interests of economy of working. The staff and patients were not sufficiently numerous to permit of entire separation, but the asylum, as a whole, was now used as a centre hospital for acute and difficult cases, with separate and detached houses for the milder forms of insanity. These wings were erected to receive acute, sick, and excited patients, and so planned as to insure complete and necessary separation. He thought that there could be little doubt that this development of asylum practice and management was on the right lines, and that the old sick ward would be improved in the direction indicated. Dr. Urquhart also spoke of the advantages accruing from a large common room for the patients built of glass, and so designed as to be a place of recreation.

STATE AID FOR POOR PRIVATE INSANE PATIENTS.

Dr. YELLOWLEES, in introducing a discussion on State aid for poor private patients, asserted that such aid was wrong in principle, for, if victims of brain disease were to receive it, how could the victims of cancer or consumption be left unaided? There would be no limit if State aid were given where not absolutely needful. He condemned the clause of the recent Lunacy Act, which authorized the reception of poor private patients into county asylums. It was impossible to separate them from the pauper patients, and the degradation of such association was a bitter aggravation of their affliction, both to the patient and to his friends. While the rich insane could purchase accommodation where they pleased and the pauper insane were well provided for in

the county asylums, poor private patients could only look to the registered hospitals. They looked in vain, for the registered hospitals were far too few for the country's needs and the area of their benevolence far too limited. They afforded most comfortable and even luxurious homes for decayed gentlefolk, but at that moment it would not be easy to find accommodation in English registered hospitals for a patient who could pay £40 a year, and far less for those who could pay only £20 or £30 a year. In Scotland the Royal Asylums erected by private benevolence, without any help from rates, and entirely self-supporting—did provide for such cases, and the loss they entailed was made good by the profits obtained from the higher class patients. In England the registered hospitals had become too often mere competitors with the private asylums, and failed to provide to any material extent for these most necessitous cases. England was far wealthier than Scotland, and was certainly not less benevolent. There was most urgent need of help for the poor private insane. It could not be that in England such patients could long be thus neglected if those who knew it sufficiently proclaimed the need.

Dr. WALLIS agreed in every particular with Dr. Yellowlees as to the urgent demand for accommodation for private cases of the lower middle classes. Experience in England, especially in the largely populated counties with large towns, showed that the demand was considerable. As in the asylums, for the most part, there was no such accommodation, these patients mostly come to the pauper asylums in virtue of an arrangement with the relieving officers or union law clerks, though in many cases they could well afford a rate of board which would enable them to receive many comforts, and that which many of them would value most of all—the society of patients of their own position as to education, etc. Many complaints had been made to him by patients' friends of this, to them, great hardship. He was quite satisfied that institutions especially erected for patients of these classes would become self-supporting, and might do much real charitable work. The chief difficulty was to find an authority willing to build such a hospital, or to find the money from any public or private source.

Dr. BEDFORD PIERCE said that the difficulty was rather that the registered hospitals in England were not sufficiently numerous than that they did not do their utmost to receive poor private patients. He stated that many of them gave charitable aid liberally, and to the utmost of their ability.

Dr. CAMPBELL CLARK felt that the question raised by Dr. Yellowlees was one for the registered hospitals to answer. No fair comparison could be made between the Royal Asylums of Scotland and the registered hospitals, as the comparative deficiency of accommodation in the registered hospitals was perhaps explained by the fact that in the past they had not fulfilled the function of pauper asylums as well as asylums for private patients, as in the case of Scotch Royal Asylums. The latter, as they became relieved of pauper patients, where new district asylums came into operation, were able to take poor private patients at a self-supporting rate.

Dr. H. NEWINGTON said that, in his opinion, the new Lunacy Act went far to kill any attempt to provide such accommodation as desired by Dr. Yellowlees.

Dr. CLOUSTON said that he agreed strongly with almost all that Dr. Yellowlees had said. His experience in Cumberland and Westmorland was that when the asylum at Carlisle had some spare accommodation, it was at once taken advantage of, and in five years fifty private patients from their guardians were sent there at fourteen shillings a week. He thought that the objections urged by Dr. Yellowlees as to the disadvantages and objections to mixing middle-class private patients with county patients were sentimental. The Cumberland farmers were perfectly content with the accommodation and treatment. Dr. Clouston was satisfied that a great benefit was conferred on the counties thus utilizing the spare beds in the county asylum. He had long had the ambition to be able to admit every patient from Edinburgh as a private patient,

and to place him in a private ward who could afford to pay 25s. a week, and would not desire to provide any better accommodation or diet or nursing than is provided by the English county asylums.

Dr. MURRAY LINDSAY desired to refer to his experience in Derbyshire, and to express his opinion that there was certainly a great need of some provision for private patients at moderate rates of board, from 15s. to 21s. per week in connection with the county asylum, which provision ought to be separate from pauper patients, not necessarily of an expensive kind, but still separate and apart from that for the pauper class. In the county of Derby this important question had engaged his attention and that of the Committee of Visitors of the Derby County Asylum for some time past, but the difficulty was to set in motion the permissive clause of the Lunacy Act, which empowered Committees to make provision for private patients.

Mr. PEEKE RICHARDS was of opinion that in the near future County Councils would provide institutions for poor private insane patients, as suggested by Dr. Yellowlees. At the present time the London County Council was making provision for such a class of patients in their recently opened asylum at Claybury. That this would be successful he had little doubt; and, if such were the case, there was every probability that the Asylums Committee would recommend further and increased accommodation of the same description, to provide for poor paying patients.

REMARKS ON THE OUT-PATIENT DEPARTMENT FOR MENTAL DISEASES AT ST. THOMAS'S HOSPITAL.

Dr. H. RAYNER said that in a letter to the *Times* (some ten years ago) he drew attention to the fact that the general hospitals took no part or share in the treatment of mental diseases. This evoked some correspondence, chiefly antagonistic to his contention that the hospitals were able to afford such help. The argument he advanced was that mental disorders should be regarded as disease just as much as the other forms of human suffering which are treated at the hospitals, and that they had as great a claim for assistance from these charities. He pointed out that mental cases suffered not only from this neglect on the part of the hospitals, but were indirectly affected unfavourably by being thus separated as a class apart from all other diseases. Out-patient departments would, he trusted, be the means of obtaining convalescent homes for the mental cases requiring them; at present mental cases are rigidly excluded from most of these; but if the need of such help can be authoritatively pressed on the public, this will soon be remedied, and the usefulness of out-patient treatment will be thereby greatly advanced. The direct work of the out-patient department is not only to treat the cases suitable for treatment, but to relegate into proper channels those requiring change of air, hospital, infirmary, or asylum care. The indirect advantages are the removal from the popular mind of the idea that mental disease is something apart from all other disease, and the bringing of the alienist physician into more intimate contact with the rest of the profession, thereby breaking down the isolation of alienism which has hitherto existed. The advantage in treatment from being in close contact with and having the aid of the other specialists of a general hospital is too obvious to need comment, and this advantage will not be without reciprocity. The claim may be fairly advanced for the out-patient department, little known as it is as yet to the class it intends to reach, that already some few admissions to asylums have been avoided, and that others have been sent thither, with a better hope of recovery than they would otherwise have had.

MASSAGE OF THE BRAIN.

Dr. ROBERTSON read a most interesting paper on this subject, and we hope at a future time to return to it.

Messrs. DANIELSSON, of London, exhibited their useful incised slates for

showing diagrammatic outlines of the convolutions of the brain for ready use at post-mortem examinations. We strongly commend them; no asylum ought to be without them, that is to say if the medical superintendent has any interest in pathology.

THE LINCOLN MURDER.—REGINA v. BARKER.

Barker was the illegitimate son of a domestic servant. The father was a hard drinker, and lived a wild life, and is described as being easily roused to anger, and brooding over any trouble he had. He had been drinking particularly hard previous to Barker's birth. A sister of the father had a delusion that poison was put into her food, and that people were trying to annoy her. She consequently barricaded her house, and abused imaginary people from the window. The prisoner's mother accused the woman who attended to her of putting poison in her tea, was eccentric, and would chase children who passed her house. She was removed to the workhouse as unmanageable. She had a sister and brother who were peculiar, the latter being known in his village as "crazy Billy."

Such was poor Barker's unfortunate family history. There was a predisposing cause of insanity—heredity—in full measure.

Then comes an exciting cause—the death of his wife. His fellow-workers described him as a sober man, depressed latterly, peculiar, and frequently saying that he wished he was dead and in paradise. Several of his mates thought he would commit suicide.

Suspicious developed, and centred on a lodger—Creasey, a schoolmaster—who had been excessively kind to him at the time of Mrs. Barker's death. He accused him of improper relations with a niece who had come to live with him after Mrs. Barker's death. No evidence was adduced, so far as we are aware, that established this allegation. Barker determines that his niece must leave. He asks Creasey to see her off and pay her fare, which he would refund. Creasey after this writes a note to him, to say he is not returning to his quarters. Barker meeting Creasey later on attempts to strike him. A temporary reconciliation follows. However, Creasey does not lodge any longer at Barker's, but at a Mrs. Wilkinson's, next door. They rarely see one another after this. Barker complains that his friends who usually came to see him to sympathize with him on his wife's death call less frequently. This he attributes to the "clandestine" actions of Creasey. In July, 1891, he bought a revolver, and about the same time wrote to Creasey the following letter:—

"Lincoln, Friday.

"To Mr. Creasey,—I am the subject of all the slang and impudence from your gang at Grimsby, I have no doubt from your encouragement. Be careful, my boy, you have got a queer man to deal with. I am only cautioning you. Be careful. I have no more to say now. You was always treated right until you misbehaved yourself.

"BARKER."

Creasey's reply is too long to quote, but is a remonstrance and expostulation highly creditable to his heart.

Subsequently Barker wrote:—

"To Creasey,—I care not what your position and influence may be, I claim for you to shield you (*sic*). I know you have been a bad, subtle, clandestine, and collusive hunk, and if position will hide you, the right hand of justice will overtake you.

"BARKER."

One would say that this is a typical letter of a man who is labouring under persecution-mania.

There is nothing important heard of Barker until November, 1892, when there is a paper written by him leaving all he has to a friend. He says at this time he felt life was not worth living, and that he was annoyed by singing and the playing of a tin whistle by the people in the next house where Creasey lived, and that it was done to annoy him, and that he had to go out to escape the noise, and on one occasion he complained about it. After Creasey left, Barker lived alone almost the whole time; he says he never suffered in health at any time except with indigestion. But he "suffered in spirit," and no one "walking a level path in life could understand his feelings." The loss of his wife and the "clandestine conduct of Creasey was the burden of his daily life."

In the early part of May, 1893, he began to abuse his neighbour Mrs. Wilkinson, and her lodger Creasey, accused them of immoral conduct, and used threats towards him. On the 3rd May his conduct towards them was such that they consulted a solicitor, and two summonses were taken out by Creasey to have him bound over to keep the peace.

These summonses were served on Barker on the evening of May 3rd. He called and saw Mrs. Wilkinson, said it was a party matter, and asked if it could not be made up. She declined to make it up, and he did not see Creasey.

Barker seems to have sat up and wandered about his house all that night, and on one occasion tried to get into the house of Mrs. Wilkinson. It was stated he had been drinking sherry and rum. Early next morning he talked to Mrs. Wilkinson over the fence, and as she still refused to allow, and tried to prevent him seeing Creasey by fastening the door, he shot at her, walked into the house to Creasey's room, and when he opened the door shot Creasey. He then went back to his own house, intending to shoot himself, but was arrested, and when charged with the murder said, "I know that's justice."

The following notes were found, and had been written during the night:—

"Mr. Booth, please make me a coffin just like my dear wife's. Law is master of me, but justice I have. They are dishonest, but they will suffer.

"The clock on the room mantel shelf, writing desk in cupboard, my wife's watch and couch rug, I wish Mr. Hallam, of 17, Ash Grove, Bradford, to have them.—BARKER. And anything else he would like. The hymn book on table for Mrs. Morris, widow of relieving officer.

"I am not answerable for what I have done, but I have done justice. He is a dirty, subtle, crafty fellow. He has acted in an insidious manner because I accused him of immoral actions in my house. He has acted most dirty and 'viudicative,' and has caused me great annoyance, purposely. To set an example I die to show that his academical position cannot screen him from justice. He might, by his position, command an influence, but I have suffered in spirit from his dirty knavery. I will leave the rest for the world. I know I am not justified, but I have done it. I defy hell for speaking ill of me. If he or any other young man had conducted themselves as well as I this would not have happened. I accuse him of nothing before the girl came, but I spoke to him of sitting up at night and co-habitation. It roused his inbred revenge. A warning all round."

And the following had been put under the door of Mrs. Mitchell during the previous evening:—

"47, Danesgate.

"Dear Mrs. Mitchell,—Come to my house early and take the things; do the best you can. I owe nothing except gas; it has not been taken. It will only amount to 10s. I have nothing against you. You should have come to see me; but I forgive you.

"BARKER."

At the trial evidence was given by Dr. Murray Lindsay, of the Derby County Asylum, and Dr. Russell, of the Lincoln Lunatic Hospital, that they found the prisoner insane at the time of their examination, and labouring under delusions of persecution. He believed he was shunned by his friends and that Creasey

was the cause of this. He believed that Creasey had gone out of his way to annoy him. He was unable to specify how Creasey had done this, except that he was "clandestine and insidious." He knew he was doing it, but how he did it he could not tell because he was so "clandestine and insidious." He said that he had suffered in spirit, and his life was made miserable and unbearable, by the clandestine conduct of Creasey, and though Creasey was a weakly man, he felt he could only get at him by shooting him. They were of opinion that after his wife's death Barker suffered from mental depression, and that at the time he shot Creasey, he was under these same delusions of persecution, that his conduct and actions were so ruled and dominated by these delusions as to render him irresponsible; that though he knew the nature and quality of the act, and probably knew that it was contrary to law, he believed himself justified.

Dr. Bastian gave evidence that he had not found Barker insane, but that he had "unfounded suspicions," which were not easily to be distinguished from delusions. He believed him to be a man morbidly sensitive brooding over a supposed wrong, and this sort of thing had gone on for a couple of years, Creasey always being in his sight. He had attempted no violence, and the thing that led to the action was the issue of the summonses.*

Dr. Bastian did not consider him any more insane at the time of the shooting than any man might be said to be who was in a paroxysm of passion. "I am perfectly clear that he is not mad now, but whether he was mad at the time of the act I am not so positive, but my strong conviction is that in all probability he was not mad."

Mr. Mitchinson, the prison surgeon, stated that he had not seen any symptoms of insanity in the prisoner whilst in the prison. He agreed that a man suffering from ideas of persecution, if they were persistent, was insane.

The JUDGE, in summing up, put two questions to the jury. 1st—Did the prisoner know the nature and quality of the act? 2nd—Did he know that the act was wrong, not in the sense of being contrary to the laws of the country, but contrary to the man's internal idea of right and wrong?

The charge to the jury was marked by great fairness. The impression it conveyed was that the Judge leaned to the opinion that the prisoner was insane at the time he committed the murder.

The Jury returned a verdict of "Guilty," and not insane.

Two experts (Drs. Nicolson and Braine) were afterwards sent by the Home Office to examine Barker, the consequence of their report being that the sentence was commuted to penal servitude for life.

We understand that Barker is to be at Broadmoor for three months under observation, and that if his mental condition at the end of that time is sound he will be treated as an ordinary criminal.

Obituaries.

M. CHARCOT.

This Prince of neurologists, and an Honorary Member of this Association died August 16th, 1893, a loss to medical psychology and neurology which can scarcely be exaggerated. Original in his observations, earnest in the pursuit of the knowledge of nervous diseases, rapid but sound in his diagnosis, a master in clinical medicine and pathology, he has left a void which no contemporary is likely to fill.

Jean Martin Charcot was born in Paris, November 29th, 1825, and was therefore in his 68th year when he died. He was of somewhat humble origin,

* Barker, however, had previously attempted to assault Creasey, had written threatening letters in July or August, had complained of the noises, saying they were done to annoy him, had abused Mrs. Wilkinson, and, therefore, they were obliged to take out the summonses.

but his native genius was not to be repressed by the narrow circumstances in which he was born. More dangerous to his success in a laborious profession was the fortune he enjoyed through his marriage, but this failed to slacken his energies. He graduated in 1853. In 1862 he was appointed physician to the Salpêtrière, which he made famous by his own fame.

He became a member of the Academy of Medicine in 1873, and a member of the French Institute in 1883.

For medico-psychologists his most important works are his "*Maladies des Vieillards et les Maladies Chroniques*" and his "*Maladies du Système Nerveux*," translated for the New Sydenham Society by W. S. Tuke and Geo. Sigeron respectively. Also his "Lectures on the Localizations of Cerebral and Spinal Diseases," edited by W. B. Hadden. The "*Archives de Neurologie*," commenced in 1880, must always possess great value for the psychologist, and it was in that Journal that his first articles on hypnotism appeared. He was assisted by one of his pupils. The "*Nouvelle Iconographie de la Salpêtrière*" is of unique interest. He met his death while enjoying his holiday with two medical friends. They put up at an inn at Settons, near Chateau Chinon. Before retiring to rest he scribbled a note to his son, ending with "I hope to finish to-morrow, as we must rise before six. I must now try to sleep." His sleep was the sleep of death. He was found dead in bed next morning, the supposed cause being angina pectoris. We shall not look upon his like again.

We are indebted to the "*British Medical Journal*," August 26th, for the following leader on Charcot in relation to Hypnotism:—

"It would have been strange had so far-reaching yet profound a student of the nervous system in health and disease as Professor Charcot failed to include in his range of investigation the phenomena of hypnotism but for the fact that so many neurologists who preceded him had passed them by. It was, we well remember, suggested to him by an English physician some fifteen years ago, when he showed his cases of hystero-epilepsy at the Salpêtrière, that he would obtain great help in his neurological researches from the study of hypnotism, as described in the works of Mr. Braid. He responded to the suggestion. It was only a few months afterwards that he showed his experiments in hypnotism to the same physician, and bore testimony to the value of the researches of *le véritable initiateur dans ce genre d'études*. Passing over these fifteen years we have it from himself, within a short period of his lamented death, that he had found in hypnotism 'a rich field' for his studies in neurology.

"Let us clearly understand the exact position which he took. We can speak of this with confidence. He held that the condition induced by artificial means is a neurosis, and a neurosis allied to hysteria. It is true he qualified this pronouncement by admitting exceptions, but this statement is essentially correct, and herein his teaching differed notoriously from that of the Nancy school, so ably represented by Bernheim. One explanation of this divergence of opinion on so cardinal a point is that the combatants were concerned with cases differing widely for the most part in their character and in the range of mental phenomena. Visits to Paris and Nancy at once proved that this was so. It may well be that both were right, and that a clear definition of the sense in which they employed the same word would have averted the misunderstanding which arose.

"The fact is that the extreme and exclusive theories of either school are equally untenable. Charcot, on the one hand, triumphantly pointed to the hypnotic subject suddenly rendered cataleptic by the mere sound of a gong, without one word of suggestion. Bernheim, on the other hand, could readily demonstrate the enormous and unsuspected effect of suggestion in simulating the very phenomena which the great Salpêtrière physician induced without it. It is, however, a great mistake to suppose that the latter ignored its potency. He did nothing of the kind, although he may not have made sufficient allowance for its effect in misleading the observer, especially in his earlier researches. The formula of his rival 'no suggestion, no hypnosis,' was confuted, in the opinion of Charcot, by a single instance of spontaneous somnambulism. It is

an advantage to have been able to look coolly on the rival theorists, and to hear what could be said on either side with great ability and force by two distinguished and honest men. Both have had the courage to investigate a singularly difficult class of phenomena—to some extent different, but closely allied—and both have had the merit of throwing much light upon them, although from opposite points of view. One of the strongest proofs of the occurrence of physical signs wholly independent of suggestion which Charcot was able to adduce was the highly interesting phenomenon of neuro-muscular hyper-excitability, one of the most certain characteristics, he used to say, of hypnosis. Delicate pressure on a point in a limb or on the face, which in the normal state produces no effect on the muscle, was found by him to be followed by its proper physiological action, when the subject was in a certain stage of hypnotism. He used this incontestable fact in a twofold manner, first to refute the explanation offered by the upholders of 'suggestion' as a universal solvent, and secondly, to confute opponents who had recourse to 'imposture' as the correct explanation, for he was accustomed to say that both objectors must believe an ignorant woman to possess as minute a knowledge of the action of each muscle as Duchenne himself.

"Among the many examples of muscular contraction produced in susceptible persons in the hypnotic state, Charcot was fond of showing the delicate response to pressure on the ulnar nerve at the elbow, the subject's hand assuming the position termed *griffe cubitale*. But in truth this was but one of numberless clinical illustrations which the master gave. It is sad to think we can never witness them again. He has, however, left able successors imbued with his teaching and familiar with the nature and signs of hypnosis. More than this, he has left behind the solid and lasting results of his investigations in not only confirming, but extending, the conclusions at which Braid arrived: in reducing to something like order the multifarious phenomena of artificial sleep, and in bringing within the range of medical science and the laws of physiology, abnormal states of the nervous system, regarded by the vulgar as miraculous, and formerly by many medical men as fraudulent.

"There was one circumstance bearing on Charcot's doctrine of the neurotic nature of the hypnotic state to which must be given due weight, and that is that the patients upon whom he made his experiments were already in a highly nervous condition. Now this undoubtedly served to colour the symptoms he observed, and consequently the inference he drew as to the close alliance between hypnotism and hysteria. This is forcibly indicated by the fact that he has adopted for the title of his lucid article in the 'Dictionary of Psychological Medicine' the significant words 'Hypnotism in the Hysterical.' Hence it was that his observations were mainly conducted upon the female sex, the result being a study of a special organization. Making due allowance for this fact, which has been too much overlooked, he doubtless instituted an interesting parallelism between the two—the hypnotized and the hysterical—in his classic descriptions of the lethargic, cataleptic, and somnambulistic states, in the contractures and rigidity observed in both, as also in the sleep itself. The mistake was made—and, it must be owned, not unnaturally—by other experimenters of looking for these stages in every case of hypnotism, and, when not found, blaming Charcot's descriptions as imaginary or possibly manufactured. He may have generalized too much; but whether he did so or not, it behoves us constantly to bear in mind that he was surrounded by a peculiar group of maladies, and that, when in other hands and in other environments, hypnotized persons do not belong to this category, the three foregoing stages may be looked for in vain. In a word, hysteria was the soil on which he experimented, and when experiments are made upon another soil, the results may be very different from those recorded by Charcot, being no longer stamped by the same hysteric seal.

"In conversing with Charcot in regard to the therapeutic value of hypnotism, it was noticeable that he evidently felt less interest in this phase of the subject

than in its purely clinical aspect, and it is certainly a singular circumstance that while the faith cure, homœopathy, and similar nonentities are notoriously successful among the hysterical, hypnotism seems to be comparatively useless in this class of patients.

"No man was more opposed to quackery, and to him is due the credit of helping to rescue artificial somnambulism from the illegitimate embrace of the charlatan. Fifteen years ago, only a strong man could have given the demonstrations which he gave without endangering his professional status, and a few shallow visitors carped even at him: but he passed through the ordeal with impunity, and rendered it easy for others to prosecute the same studies. He left an example to other investigators of avoiding the rocks on which some of his *confrères* without his scientific instinct have foolishly run their craft and suffered well-merited shipwreck. Never did the illustrious Professor at the Salpêtrière allow himself to be drawn aside from the path of inductive science. His scorn of the frauds and follies which sprang up in a credulous circle outside his own school was only equalled by that which he manifested for the incredulous ignoramuses in his own profession who sneered at phenomena which they could not understand, but in which he recognized, like our own Laycock, a rich source of neurological and psychological knowledge."—"E. M. J.," August 26, 1893.

M. DELASIAUVE.

Dr. Delasiauve (Louis Jean François), who died on the 5th of June last, had well-nigh reached his 89th year. He was born on the 14th of October, 1804, at Garennes, in Normandy. Anxious to study the medical sciences, he came early to Paris, where it was his privilege to see the great alienist, Pinel, and to attend his funeral. He was a pupil of Esquirol and Ferrus, and a friend of J. P. Falret, F. Voisin, Trélat, Leuret, Calmeil, Foville, Parchappe, Moreau de Tours, Lélut, Baillarger. One of these well-known alienists is still alive; at this very moment Calmeil enjoys good health, and is now 95 years old; he resides close to Paris, at Fontenay sous Bois. Delasiauve took the degree of Doctor in 1830, a few days after the Revolution and the fall of Charles X. He returned to the country, and during about twelve years was a practising physician at Ivry la Bataille, a small town near which Henri IV. defeated Mayenne and the Ligueurs in 1590. He succeeded wonderfully. But in such a place there was not sufficient room for his great activity. He came back to the metropolis, and after a brilliant competition was received as a physician in the Paris hospitals. In 1844 he obtained a ward at Bicêtre. The study of idiocy and epilepsy had a great attraction for him; he was fond of those unfortunate children, whose life is a long distress, and endeavoured to educate the idiots. He opened a special school at Bicêtre, and some years afterwards at the Salpêtrière. As an alienist he is well known, and his private life was excellent. His friends and pupils will never forget his kindness.

Some of Delasiauve's principal books and notices were as follows:—

Du diagnostic différentiel du delirium tremens, ou stupeur ébrieuse ("Revue Médicale," 1850).

D'une forme grave de delirium tremens (*Idem.*, 1852).

Sur la stupidité ou mélancolie avec stupeur (*Idem.*, 15 Octobre, 1853).

Consultation médico-légale sur une aliénation mentale occasionnée par les vapeurs mercurielles ("Expérience," Décembre, 1840).

Mémoire sur l'extase ("Réveil de l'Eure," 1842).

Essai de classification des maladies mentales (*Idem.*, 1844).

Considérations théoriques sur la folie (lues à l'Académie de Médecine, en 1843.)

Influence du choléra sur la production de la folie ("Annales Médico-Psychologiques," 1849).

Du diagnostic différentiel de la lypémanie (*Idem.*, 1851).

De la classification et du diagnostic différentiel de la paralysie générale (*Idem.*, 1851).

Observations de rougeole chez les idiots (*Idem.*).

D'une forme mal décrite de délire consécutif à l'épilepsie (*Idem.*, 1852).

Note sur le traitement de l'épilepsie par les frictions stibiées sur le cuir chevelu (*Idem.*).

De la monomanie au point de vue psychologique et légal (*Idem.*, 1853).

Traité de l'épilepsie (1854).

Des principes qui doivent présider à l'éducation des idiots (1859).

Discours aux pris des enfants épileptiques, idiots et aliénées de la Salpêtrière.

Classification des maladies mentales, ayant pour double base la psychologie et la clinique ("Progrès Médical," 21 février, 3 et 10 mars, 1877).

M. Delasiauve edited the "Journal de Médecine Mentale" from 1860 to 1871.

RENÉ SEMELAIGNE.

M. BLANCHE.

It falls to our lot to chronicle the death of another Paris physician. All three were honorary members of our Association.

M. Blanche had a bountiful supply of the milk of human kindness, and was beloved by every one. He was, in truth, *un grand homme de bien*. His loss will be mourned by not a few English alienists who visited him in Paris or met him in England.

Antoine-Emile Blanche was born in Paris, October 1st, 1820, and was consequently 72 years of age when he died on the 15th August last. He was born in the Maison de Santé, founded by his father. He became Doctor of Medicine in 1848. When his father died he became the director of the asylum.

It was when conversing with his patients that M. Blanche could be best judged and the nobility and delicacy of his heart appreciated. No one possessed more tact and ability in gaining the confidence of the insane and consoling them in their sorrows. To those in indigent circumstances he was generous in the extreme. Many mourn his loss sincerely who have thus benefited by his kindness—a charity of a very unobtrusive character. His benevolence was not, however, his only quality; he took a high position in the special department to which he devoted himself. He was the author of several works, one of which, "*Les Homicides commis par les Aliénés*" (1878), is valuable both for its record of cases and his commentaries. He also wrote articles on Melancholia, the Moral Treatment of Insanity, Mental Alienation as a Justification of Divorce, and the Reform of the French Lunacy Law.

On the question of divorce on the ground of insanity, he gave evidence before the Commissions appointed by the Senate and the Chamber, and, supported by Charcot, Motet, and Magnan, he successfully contended that the marriage tie should never be dissolved on this ground.

For thirty years M. Blanche was consulted in nearly every criminal case in which the plea of insanity was set up.

M. Blanche was made a Chevalier of the Legion of Honour in 1854.

He consecrated his last days to his patients at Passy, and nothing but illness induced him to suspend his work. He was only confined to bed for a dozen days; then he passed away, "*avec le calme d'une belle âme et avec la conviction profonde qu'il n'avait fait que le bien toute sa vie*," to quote the words of a Paris medical journal, to which we are indebted for much of the foregoing notice.

WINNER OF THE BRONZE MEDAL AND PRIZE OF TEN GUINEAS.

ALFRED WALTER CAMPBELL, M.D.Edin., Assistant Medical Officer, County Asylum, Rainhill.

A Special Prize of Five Guineas was awarded to EDWIN GOODALL, M.D., Pathologist, Assistant Medical Officer and Pathologist, West Riding Asylum, Wakefield, for the excellence of his essay.

M.P.C. EXAMINATION.

England.

The following candidate for the M.P.C. passed the Examination, held at Bethlem Hospital, July 18th, 1893:—

ROBERT WILSON, Brislington House.

Scotland.

D. R. T. STRONG.
R. D. HOTCHKIS.
S. EDGERLEY.
A. LOW.
C. G. COWIE.
P. J. HENDERSON.

L. GRANT.
R. ST. GEO. S. BOND.
J. MACMILLAN.
J. W. MYERS.
A. ROSE.

EXAMINATION FOR CERTIFICATE OF PROFICIENCY IN NURSING.

The next Examination for this Certificate will be held on the first Monday in November. All inquiries in connection with this Examination should be addressed to the Registrar,

Dr. SPENCE,
Burntwood Asylum, Lichfield.

Appointments.

JOHNSTON, G. H., L.R.C.P. and S.Ed., appointed Junior Assistant Medical Officer to the North Riding Asylum, Clifton, York.

KERSHAW, H. W., M.R.C.S., L.R.C.P., appointed Senior Assistant Medical Officer to the North Riding Asylum, Clifton, York.

SKAE, F. M. T., M.B., C.M.Ed., appointed Junior Assistant Medical Officer to the Stirling Asylum, Larbert.

TAYLOR, F.R.P., M.B., B.S.Lond., appointed third Assistant Medical Officer to the London County Asylum, Claybury.

PHOTOGRAPHIC GROUP OF THE BUXTON MEETING.

The photographs were a great success. Four separate groups were taken. The price of each is 3s. mounted, 2s. 6d. unmounted. Nos. 1 and 2 are identical, and contain the largest number taken. No. 2 is rather the best, and contains the largest number (55). No. 3 contains 28 photographs, excluding Drs. Clouston, Howden, Rayner, Rutherford, Hack Tuke, and others. Photo very clear. No. 4 is good, with the exception of the worthy Treasurer, and contains 24 photos, including the above-mentioned names.

Apply to Mr. D. C. LATHAM, Photographer, Station Road, Buxton.

Appendix of Tables to Dr. Beadle's Article on Myxædema,
p. 509.

TABLE Ia.—Cases of Myxœdema Treated by the Subcutaneous Injection of Thyroid Extract.

No.	Observer.	Reference.	Sex.	Age.	Duration of Myxœdema.	Length of Treatment when Reported.	Dosage and Method of Administration.	Result.	III.—Effects.
1*	Dr. George Murray, of Newcastle.	Brit. Med. Journ., Oct. 10, 1891.	F.	46	4 to 5 years.	3 months: April 13—July 13.	At first mxxv. twice a week, afterwards less frequently. Three weeks' interval between last two injections.	Improved with disappearance of most symptoms.	
		Brit. Med. Journ., Aug. 27, 1892. See Present Paper.				13 months: April 13, 1891—June 4, 1892. Over 2 years.	Same as above. mxxv. once a fortnight since July, 1891.	Improvement, but symptoms returned when no injection given for five weeks, and again when the injections were discontinued.	Abscess only after 13 months of treatment.
2*	Ditto.	Brit. Med. Journ., Aug. 27, 1892. See Present Paper.	F.	52	12 years.	8 months: Nov. 1, 1891—July, 1892. Nearly 2 years.	mxxv. once a week for 4 months, then once a fortnight for 2 months, then once a week again last 2 months.	Improvement (photograph) shows remarkable change in appearance. Remains well.	Occasional malaise after injection. Once there was loss of consciousness and tonic spasm for a few minutes; at another flushing, nausea and lumbar pain. Once an indurated swelling formed. Died from cardiac failure following bronchitis. Died from cardiac failure.
4	Ditto.	Ditto.	F.	62	6 to 7 years.	?	mxxv. weekly.	"Very marked improvement."	
	Ditto.	Ditto.	F.	64	5 years.	3 months.	mxi. to mxxv. weekly.	"Considerable improvement took place," with scarcely any signs left.	
5	Ditto.	Lancet, Oct. 22, 1892.	M.	44	3 years.	6 weeks.	3iii.=2 whole thyroid glands during that time, in 13 injections.	"All the symptoms had practically disappeared." "At the end of August the improvement was so great that no one seeing him could tell that he had had myxœdema."	Local inflammation after fifth injection, with erythematous rash, followed by an abscess.

6*	Dr. Wallace Beatty, of Dublin.	Lancet, May 13, 1893.	F.	45	7 years.	January, 1893. May, 1893 (8 months). 2 months: Dec. 11, 1891—Feb. 13, 1892. May—Aug., 1892.	Glycerine extract by month. Since Nov., 1892, has taken regularly 5i. each week by month in daily doses of m̄x. for 5 months.	"Quite cured." "At present time in same excellent state of health." "Now she is practi- cally cured."	Injections once fol- lowed by epilep- tic form attack, thrice by agonizing pain in lumbar region, and once general oedema of face and feeling of weakness. Died (Feb. 28, 1893) from malignant disease of omentum.
7*	Ditto.	Dublin-Journ. Med. Sc., May, 1893. Lancet, May 27, 1893.	F.	50	6 years.	1 month: March 4, 1892—April 2, 1892.	Nine injections given during the month, extract of 2 glands in all (m̄120).	"The improvement was very marked and rapid." No symptoms of myx- cedema left.	Pain in head and aching in limbs. Twice the injections were followed by suppuration, the last by phlegmonous erysipelas of the arm.
8	Dr. Ernest Carter, of County Asylum, Wittingham, Lan- cashire.	Brit. Med. Journ., April 16, 1892.	F.	43	1 year.	3½ months: Oct. 21, 1891—Feb. 7, 1892.	m̄xxv. twice a week.	"Improvement in body and mental condition," especi- ally the former. "Improvement was most marked."	Febrile attack with slight rigor, and formation of an abscess.
9*	Dr. Arthur Davies, of London.	Brit. Med. Journ., April 30, 1892. (Shown at Clinical Soc., April 22, 1892.) Brit. Med. Journ., Aug. 27, 1892.	M.	43	12 years.	4 months: Dec., 1891—April 30, 1892.	Hypodermic injec- tions, m̄xxv., twice a week.	"Great improvement." "Regained both mental and bodily activity." Maintained by occa- sional doses.	Nil.

TABLE Ia (Continued).—Cases of Myxodema Treated by the Subcutaneous Injection of Thyroid Extract.

No.	Observer.	Reference.	Sex.	Age.	Duration of Myxodema.	Length of Treatment when Reported.	Dosage and Method of Administration.	Result.	Ill Effects.
10*	Dr. Arthur Davies, of London.	Brit. Med. Journ., Aug. 27, 1892.	F.	43	8 years.	16 months.	Injections for 6 weeks. After an interval of 2 months was put on thyroid tablets.	Improved at first, and after a relapse when no treatment again improved.	Nil.
11*	Ditto.	Letter, Aug. 10, 1893. Letter, Aug. 10, 1893.	F.	46	7 years.	12 months (Aug., 1893).	Injections for 3 months, interval of 5 weeks, then put on tablets.	Greatly improved after 3 months, and again after taking tablets. "Discharged; quite well in all respects."	Nil.
12	Dr. Clave Shaw, of Banstead Asylum.	Brit. Med. Journ., Aug. 27, 1892.	F.	33	4 years.	3 months: April 9—June 1, 1892.	Injection about every other day; amount not stated.	"Marked beneficial results."	Twice abscesses formed; at another pain and swelling. Lividity of skin, tremors, unconsciousness for $\frac{1}{2}$ hour.
13	Dr. Hearn, of Dublin.	Brit. Med. Journ., Aug. 27, 1892.	F.	?	?	?	Very few injection spread over a long period.	Improvement.	No abscesses or elevation of temperature.
14	Mr. Hurry Fenwick, of London.	Brit. Med. Journ., Sept. 10, 1892. Brit. Med. Journ., and Lancet, Oct. 22, 1892. (Shown at Patho. Society, Oct. 18, 1892.)	F.	?	?	?	Ditto.	Ditto.	Ditto.
15	Ditto.	Ditto.	F.	?	?	?	Ditto.	Ditto.	Ditto.
16	Dr. Madden, of London.	Brit. Med. Journ., Oct. 22, 1892.	?	?	?	?	Ditto.	Ditto.	Ditto.
17	Ditto.	Ditto.	?	?	?	?	Ditto.	Ditto.	Ditto.
18	M.M. Bouehard and Charrin, of Paris.	Lancet, Oct. 1, 1892. B. M. J. and Lancet, Oct. 22, 1892. B. M. J. (Epithone), Nov. 12, 1892.	F.	25	?	3 months.	Ditto.	Practically cured.	Intense headache and pains in limbs and chest after injections, and treatment had to be stopped at times.
19	Ditto.	Ditto.	F.	"Older" than last case.	?	?	Ditto.	"Highly favourable, both bodily and mentally." Ditto.	Ditto.

20	Dr. Alex. Napier, of Glasgow.	F.	54	5 years.	2 months: May 12, 1892—July 10, 1892.	mxx. every 2 or 3 days as a rule. Six- teen injections given in all.	Much improved, as seen in photograph. "Remarkable im- provement, which is maintained now, three months after cessation of treat- ment."	An abscess once formed.
21	Mr. Cecil F. Beadles, of Col- ney Hatch Asy- lum.	F.	50	8 years.	3 months: May 10, 1892—Aug. 24, 1892. 15 months, Aug. 5, 1893.	mxx. three times a week for last two months. Seventeen injections in all. Thyroid powders in- ternally for six months.	Marked improvement, both in mental and bodily condition. Improved condition maintained.	Slight nausea occa- sionally; attack of rheumatic fever; at another time swell- ing and pain in shoulder.
22	Ditto.	F.	51	"early."	5 weeks: Aug. 24 —Oct. 4, 1892.	Fourteen injections of mxx. each, usually every other day.	Slight improvement bodily.	
23	Dr. A. Barron, of Liverpool.	F.	64	8 years.	4 months: May, 1892—Sept., 1892.	mxx. twice a week; 30 injections in all; since Sept. had one weekly injection Now having tabloids.	"Considers herself to be perfectly well." "Returned to her normal condition."	Nil.
24	Ditto.	F.	55	?	7 weeks, Sept., 1892. ?	13 injections of mxx. Daily injections.	Improvement most marked. "Much better" phy- sically and men- tally, although could still be recognized as myxœdema.	
25	Prof. Mendel, of Berlin.	F.	58	4 years.				

TABLE Ia (Continued).—Cases of Myxœdema Treated by the Subcutaneous Injection of Thyroid Extract.

No.	Observer.	Reference.	Sex.	Age.	Duration of Myxœdema.	Length of Treatment when Reported.	Dosage and Method of Administration.	Result.	Ill-Effects.
26	Dr. W. Hunter, of Nottingham.	Brit. Med. Journ., Dec. 31, 1892 (Nottingham Med.-Chir. Soc., Dec. 14, 1892). Lancet, Dec. 24, 1892.	?					Adopted with complete success.	
27	Dr. G. E. Hale, of St. George's Hospital.	Brit. Med. Journ., Dec. 31, 1892.	F.	48	15 years.	5 months: Jan. 9, 1892—June 1, 1892.	mxxv. weekly.	"Great improvement."	No unpleasant symptoms except slight faintness.
28	Ditto.	Ditto.	F.	46	2 years.	3 months: April 5—July 20.	mxxv. weekly.	Ditto.	Giddiness and headache; weakness in arms.
29	Ditto.	Ditto.	F.	54	7 years.	5 months: March 16—Aug. 16.	mxxv. weekly, later one every three weeks.	"Marked improvement."	Fainting and nausea, weakness in arms, fainting fits, pain and swelling; abscess.
30	Ditto.	Ditto.	F.	27	1½ years.	3 months: March—June 4.	mxxv. weekly.	"Slight improvement."	Pain in back and general fatigue for 24 hours after injections.
31	Dr. Chopinet, of Paris.	Soc. de Biol., iv., 1892.	F.	23	2 years.	?	Half a gland in 3 injections fortnightly.	Immensely improved.	No bad results.
32	Dr. J. Corkhill, of Birkdale.	Brit. Med. Journ., Jan. 7, 1893.	F.	32	5 months, sudden onset and enlarged thyroid.	2 months: Sept. 24—Nov. 18, 1892.	m xv., three times a week.	"Recovery." "She looked healthy."	
33	Wielmann, of Berlin.	Brit. Med. Journ., Feb. 4, 1893. Deut. Med. Wochenschr., Jan. 12, 1893.	F.	35	2 years.	1 month: Aug. 16, 1892—Sept. 17, 1892.	Nine injections of thyroid extract.	"After 4 injections there was considerable improvement. At last-named date the disease could not be recognized." "Greatly improved."	
34	Dr. A. James, of Edinburgh.	Brit. Med. Journ., Feb. 18, 1893. (Edin., Stirling, etc., Dr. B. M. A., Feb. 3, 1893).	M.	50	?	6 or 8 weeks.	Injection of thyroid juice.		

35	Dr. J. P. Henry, of Lewisham.	F.	44	14 years.	5 months—May 14—Oct.	Bi-weekly injections of mxxx. from May 14 to Aug. From Aug. to Oct. had 2 injections in every fortnight. Since fed with raw thyroids.	Vastly improved; cedema greatly dis- appeared, and face looks natural and at least 10 years youn- ger. Followed by less marked results. "Great benefit."	After first injection had an epileptic fit. After 14th injection a small abscess formed. During 19th injection had faintness, with great flushing of upper part of body, and pain in back.
36	Dr. R. H. B. Nichol- son, of Hull.	F.	25			Injection of $\frac{1}{4}$ a lobe twice a week.		
37*	Dr. J. L. Owen (Dr. Hunt), of Sheffield.	F.	46	2 years.	6 months: Sept. 1892—Mar., 1893.	Injection of extract and feeding with raw thyroid glands.	Marked improve- ment.	On 2 occasions alarm- ing symptoms of cedema of face oc- curred during the injection.
38*	Dr. Little, of Dublin.	F.	30	4 years.	11 months. 8 months.	Now (Aug.) taking one lobe of the gland once a week. At first hypodermic injections for two months, and subse- quently by mouth. Juice of one thyroid in week when used hypodermically and two when eaten. First month had in- jections every other day (mxxv.), then every third day. For six months hypo- dermic injections twice a week. After- wards thyroid juice or tablets inter- nally twice a week.	"The patient has been relieved of all symptoms." "Most satisfactory."	Nil.
39	Dr. J. K. Barton, of Montone.	F.	58	3 years.	2 months: Jan. 26—March 30, 1893.		"Felt much better."	Transitory feeling of faintness, nausea, or burning.
40*	Dr. W. Dobbie, of Banbridge, Ireland.	F.	40	4—5 years.	13 months.		"Considers herself well."	An abscess once.

TABLE II.—Cases of Myxœdema Treated by the Ingestion of Thyroid Preparations.

Observer.	Reference.	Sex.	Age.	Duration of Myxœdema.	Length of Treatment when Reported.	Dosage and Method of Administration.	Result.	Ill-Effects.
41* Dr. Hector Mackenzie, Royal Free Hospital, London.	Brit. Med. Journ., Oct. 29, 1892. Lancet, Oct. 15, 1892. Lancet, Oct. 29, 1892.	F.	40	4 years.	1 month: July 27, 1892—Aug. 17, 1892. Aug.—Oct.	16 thyroid glands given by mouth at irregular intervals twice at a meal; and in addition once two drachms of extract given by mouth. One thyroid twice a week.	"A very marked change for the better." "The existence of the disease would probably not suggest itself to anyone seeing her now for the first time." Oct. 29, 1892: "Looks and feels very well." Jan., 1893: "Cured of Myxœdema." "After a fortnight she had markedly improved, and had now for six months been practically well." "In very good health, with no sign of myxœdema whatever."	Nausea, vomiting, and aching pains at first administration; vomiting on five occasions.
42 Dr. E. L. Fox, of Plymouth.	Brit. Med. Journ., Oct. 29, 1892. Lancet, Dec. 3, 1892. (Shown at Plymouth Med. Soc., Nov. 9, 1892).	F	49	?	12 months: Aug. 5, 1893. 4 months: June 2, 1892—Sept. 22, 1892. Nov. 9, 1892.	Expressed juice of a whole thyroid gland once a week, or three White's powders a week. At first a glycerine extract of the gland, made from half a thyroid a day twice a week; afterwards half thyroid minced and fried twice a week, with the extract once a week. Extract once a fortnight.	"She considered herself well." Remains in improved condition.	Became extremely weak for a time.

43*	Dr. H. Handford, of Nottingham.	F.	56	5 years.	10 months: Oct., 1882—Aug. 10, 1883.	Fresh glycerine extract prepared in the hospital, $\frac{1}{2}$ a thyroid every other morning for the first week, afterwards twice a week. Since first 9 weeks has taken a tabloid twice weekly. Extract given by month, in addition to arsenic and iron internally.	"Great improvement, so much that patient is not very willing to continue treatment—considering herself well."	None except a little depression while taking the extract every other day.
44	Dr. T. McCall Anderson, of Glasgow.	F.	30	10 years	2 months.	"The mental and bodily habitude has entirely disappeared, and the speech and intellectual faculties are perfect." Photo.	"Quite a changed appearance." Due to loss of myxoedematous characteristics.	Headache and pains in back and limbs; nausea, weakness, vertigo, and palpitation on stooping.
45	Dr. E. Cresswell Barber, of Brighton.	M.	53	7 years.	1 month: Nov. 12, 1892—Dec. 3, 1893.	One thyroid gland at a time—5 in all.	Improvement rapid and satisfactory (then stopped, and after 5 weeks patient relapsed.)	Pains and abscesses after injections; once a severe attack of heart failure.
46	Dr. Robert A. Lunnie, of Edinburgh.	F.	54	14 years.	After 6 weeks' injections, Oct., 1891.	Injections in larger doses than Murray's.	"No one would suspect that she had suffered from severe myxoedema." Photo.	No bad symptoms.
47	Dr. C. Holman, of London.	F.	44	Over 7 years.	6 months: July, 1892—Dec., 1892. 18 months, with intermissions.	Extract by month representing 1-6th part of sheep's thyroid twice weekly. 1-15th oz. of sheep's thyroid daily.	In 9 days "all symptoms better."	Tumultuous action of heart and sleeplessness, and slight faintness.
48	Dr. Arthur Davies, of London.	F.	47	6 years.	3 months: Oct. 12, 1892—Jan. 21, 1893. 7 months.	One whole gland (2 lobes) every other day. After first fortnight $\frac{1}{2}$ lobe every other day. Later took $\frac{1}{4}$ a lobe once a fortnight. Thyroid extract in powder—1-8th of en-tire thyroid of sheep every day in tepid beef tea.	"All had greatly benefited under treatment." "Rapidly improved."	Nil.

B.M.J. & Lancet, Feb. 25, 1893.
Edin. Med. Journ., May, 1893.
Brit. Med. Journ., Jan. 21, 1893.

Lancet and Brit. Med. Journ., Feb. 4, 1893.
(Clinical Society, Jan. 27, 1893.)
Letter, Aug. 10, '93.

TABLE Ib (Continued).—Cases of Myxoedema Treated by the Ingestion of Thyroid Preparations.

No.	Observer.	Reference.	S.x.	Age.	Duration of Myxoedema.	Length of Treatment when Reported.	Dosage and Method of Administration.	Result.	Ill-Effects.
49*	Dr. Arthur Davies.	Lancet and Brit. Med. Journ., Feb. 4, 1893. (Clinical Society, Jan. 27, 1893.) Ditto. Letter, Aug. 10, '93. See present paper. Lancet and B.M.J., Feb. 4, 1893.	F.	59	10 years.	7 months.	Three months' treatment by thyroid tablets.	"No trace of myxoedema."	Nil.
50*	Ditto.		M.	45	6 years.	7 months.	Thyroid extract in powder—1-8th of cup-ture thyroid of sheep every day in tepid beef tea.	"All trace of myxoedema was gone in 3 months."	Nil.
51*	Ditto.	(Clinical Society, Jan. 27, 1893.) Ditto.	F.	54	4 years.	4 months.	Thyroid tablets.	Improved markedly.	Nil.
52	Dr. Pasteur, of London.		F.	55	17 years.		Raw gland twice a week, at first $\frac{1}{4}$ a gland, and later a whole one daily.	"Much benefited." "Markedly improved."	Toxic symptoms developed after 5 glands with feebleness of heart, so dose reduced.
53	Dr. Calvert, of London.	B.M.J., Feb. 4, 1893; also B.M.J., April 15, 1893. Sanning, MéL., Feb. 8, 1893. Dent. Med. Woelch., March 16, 1893.	F.	?	12 years.		Fried thyroid gland, $\frac{1}{4}$ a thyroid three times a week. Feeding with thyroid of calves; 4 lobes of lightly cooked calves thyroid daily.	"Greatly benefited." "Getting better rapidly." "The result was excellent." Great improvement in the course of 3 weeks. Several relapses, "have all been quickly cured by the same treatment."	Slight steno-cardiac attacks, which necessitated its temporary suspension.
54	Prof. Howitz, of Copenhagen.		F.	42		March 22, 1892—July 6, 1892. Over 3 months.			
55	Dr. Byron Bramwell, of Edinburgh.	Brit. Med. Journ. and Lancet, Feb. 25, 1893. (Edin. Med. Chir. Soc., Feb. 16, 1893.) Edin. Med. Journ., May, 1893. Edin. Med. Journ., May, 1893.	F.	?	5 years.	3 months: Nov. 8, 1892—Feb., 1893.	$\frac{1}{2}$ sheep's thyroid internally on alternate days, afterwards reduced in amount; given raw chopped, and put in water-paper.	"In four days a great change for the better began to take place." "Now practically cured." Sufficiently well to be a house-keeper. "Resuming her normal condition." Looked "15 years younger."	Derangement of gastro-intestinal system; pains and tendency to faint.
56	Ditto.		F.	33	3 years.	2 months: Dec. 26, 1892—Feb., 1893.	First with 1-8th of thyroid ($\frac{1}{4}$ lobe) daily, afterwards with $\frac{1}{4}$ and later with $\frac{1}{2}$ thyroid daily. Chopped and in rice-paper.		Pains, palpitation, and debility.

57	Dr. A. Bruce and Prof. Fraser, of Edinburgh.	Ditto.	F.	?	?	30 grs. of thyroid extract twice weekly during the first month. ?	Greatly improved within a week.	Headache and occasionally pains in limbs.
58	Dr. Foulis, of Edinburgh.	Ditto.	?	?	?	"Had done very well."		
59	Ditto.	Ditto.	?	Advanced.		Single dose of $\frac{1}{4}$ of a sheep's thyroid.	"No change."	Died within 24 hours from exhaustion and diarrhoea.
60	Dr. John Thomson, of Edinburgh.	Edin. Med. Journ., May, 1893. (Edin. Med. Chir. Soc., Feb. 16, 1893.)	F.	51	Over 10 years.	$\frac{1}{4}$ of sheep's thyroid by mouth twice a week.		Slight headache after third dose.
						$\frac{1}{4}$ thyroid twice a week.		On one occasion had severe angina-like pains, on another fainted.
							"Swelling almost entirely gone."	Died from cardiac failure.
61	Dr. G. H. Melville Dunalop, of Edinburgh.	Ditto.	F.	46	5 years.	4 months, Oct. 8, 1892.	Improvement noted in 10 days.	Aching pains in limbs, neck, and chest. Irregular action of heart.
						Nov. 20.	Dose reduced to mxx. twice weekly.	
						Dec. 2.	Reduced to mxx. twice a week.	"Says she feels quite well and perfectly cured."
						Jan. 10, 1893.	Now having mxx. once a week.	
						Jan. 18, 1893.	mxx. once a fortnight.	Feb. 1st, 1893: "Con- tinues quite well."
						3 $\frac{1}{2}$ months, Oct. 18, 1892.	mxx. of thyroid extract twice weekly.	In a week "the excitement had quite gone," and improvement in body began.
62	Ditto	Ditto.	F.	?	12 years.	Nov. 12.	Dose reduced to mxx. twice a week.	Severe aching pains in limbs and chest and neck.
						Jan. 14, 1893.	Now given every alternate week.	
						Feb. 1.	"Many of her friends scarcely recognized her."	

TABLE Ib (Continued).—Cases of Myxodema Treated by the Ingestion of Thyroid Preparations.

No.	Observer.	Reference.	Sex.	Age.	Duration of Myxodema.	Length of Treatment when Reported.	Dosage and Method of Administration.	Result.	Ill-Effects.
63	Dr. G. H. Melville Dunlop, of Edinburgh.	Edin. Med. Journ., May, 1893. (Edin. Med. and Chir. Soc., Feb. 16, 1893.)	F.	43	3 years.	3 months, Nov. 18, 1892—Feb. 14, 1893.	At first, mxx. of extract administered thrice weekly, afterwards dose reduced to mxx. twice a week, then to mxx. once a week.	Improvement noticed after a week. "Mind is much clearer." "All the symptoms yielded to treatment in a couple of months." "Change noticed in a week. Improvement so marked that a friend 'failed to recognize her.'"	
64	Ditto.	Ditto.	F.	56	9 years.	1½ months: Dec. 31, 1892—Feb. 12, 1893.	mxx. of thyroid extract thrice weekly.	Change noticed in a week. Improvement so marked that a friend "failed to recognize her."	Weakness.
65	Ditto.	Ditto.	F.	48	20 years.	1 month: Jan. 21, 1893—Feb. 14, 1893.	mxx. of extract twice weekly.	"Marked difference," and "her spirits are markedly improved."	Nausea and loss of appetite; aching pains.
66	Ditto.	Ditto.	M.	63	18 years.	Jan. 23—Feb. 11, 1893.	1-6th of a thyroid gland administered twice a week. Thyroid gland.	Slight improvement noted in 10 days' time. "I improved very much."	Nausea and restlessness.
67	Dr. H. M. Church, of Edinburgh.	Ditto.	F.	60	"6 months."	?			Severe prostration for 48 hours following an overdose. Swelling of parotid and submamillary glands.
68	Dr. Stalker, of Dundee.	Ditto.	?				?	"With success."	
69	Dr. Watson Williams, of Bristol.	Ditto.	F.	48	13 months.	10 months: Oct. 22, 1892—Aug. 10, 1893.	22 thyroids in sandwiches in two weeks. After an interval of one month, extract given = ½ lobe twice a week. Recently pills (½ lobe) three times a week.	Ditto. "Immense improvement. Perfectly free from all unhealthy symptoms." "Can walk five miles without difficulty."	Great cardiac enfeeblement and weak pulse from excessive dose, which recovered with use of cardiac tonics.

71	Dr. Grainger Stewart, of Edinburgh.	Edin. Med. Journ., May, 1893. The Practitioner, July, 1893.	38	9 years.	2 months: Feb. 15—April 24.	30 grs. of uncooked sheep's thyroid every third day in wafer- paper; afterwards increased to 50 grs., and then to one drachm.	"Most satisfactory." "She describes her- self as feeling in all respects infinitely better."	Various discomforts felt as oppression in chest, itching and burning sensations, weakness and sore- ness. In addition had four serious at- tacks of heart failure with severe dysp- noea.
72	Dr. Menzies (referred to by Dr. Bramwell).	Edin. Med. Journ., May, 1893.	?			Thyroid feeding.		
73	Dr. Hadden, of Lon- don.	Brit. Med. Journ., March 4, 1893. Lancet, ditto. (Clinical Soc., Feb. 24.)	40		1 month	Powdered thyroid ex- tract (thyroid gland powders).	"Improved remark- ably." "She improved very rapidly, and in about a month she was practically well."	
74*	Dr. Robert Kirk, of Glasgow.	Lancet, March 11, 1893.	42	6 years.	3 months	Fresh gland daily (3 to 10 gr.) by the mouth of Burroughs and Wellcome's ex- tract, or an home- made extract of B. and W.'s tabloids.	"Improved in a few days, almost cured in two months, after which small doses given to maintain the result."	Nil.
75*	Ditto.	Ditto.	72	26 years.	4 months	Ditto.	Ditto.	Nil.
76	Dr. E. Carmichael, of Edinburgh.	Lancet, March 18, 1893.	?			Extract and feeding.	Marked beneficial re- sult.	
77	Ditto.	Ditto.				Ditto.	Ditto.	
78	Mr. B. J. D. Shap- land, of Exmouth.	Brit. Med. Journ., April 8, 1893.	52	10 years.	2 months: Nov. 12, 1892—Jan. 12, 1893.	Feeding with thyroid gland of sheep; $\frac{1}{2}$ an underdone thyroid gland the first thing every morning with her food up to Jan. 12.	A week later said she "felt better than she had done for years." After 10 days size of face much dimin- ished and hearing improved. Feb. 5: "Feels quite well."	During the last week some feeling of dis- comfort about neck and shoulders.
79	Dr. Laache.	Brit. Med. Journ. (Epitome), April 15, 1893. Dent. Med. Week., March 16, 1893.	49		3 months.	Feeding with glyce- rine extract, or after cooked, with salt and bouillon added. Later the fresh glands finely minced, first of sheep and then of calf.	Discharged well at end of 3 months.	Some unfavourable symptoms appeared with large doses.

TABLE Ib (Continued).—Cases of Myxœdema Treated by the Ingestion of Thyroid Preparations.

No.	Observer.	Reference.	Sex.	Age.	Duration of Myxœdema.	Length of Treatment when Reported.	Dosage and Method of Administration.	Result.	Ill-Effects.
80	Mr. R. H. B. Nicholson, of Hull.	Brit. Med. Journ., April 8, 1893. (East York and North Lincoln Br. B.M.A., March 24, 1893.) Ditto.	F.	56	16 years.	8 weeks.	1 lobe of sheep's thyroid for 3 days running, then 1 lobe every week minced or in an infusion.	At end of 8 weeks seemed quite well.	No ill-effects.
81	Dr. H. W. Pigeon, of Hull.	Ditto.	F.	64	3 years.	8 weeks	$\frac{1}{4}$ raw minced thyroid lobe was given for 7 days. After 14 days rest $\frac{1}{4}$ lobe given once or twice a week according to pulse rate.	Marked effect on the œdema. "At end of 8 weeks the patient was well."	But caused great muscular and cardiac weakness.
82	Dr. J. H. Benson, of Dublin.	Brit. Med. Journ., April 15, 1893. Lancet, May 27, 1893. (R. Academy of Medicine in Ireland, April 17, 1893.) Dublin Journ. Med. Sc., May 1893.	F.	50	8 years.	3 months: Jan. 17, 1893—April 17, 1893.	mx. of thyroid extract, 2 doses daily between meals. Increased to mxxv. twice daily. Recently a single daily dose of mviij. in water.	First 3 weeks without apparent effect. Followed by marked improvement, and now quite changed.	
83	Dr. Cocking, of Sheffield.	Brit. Med. Journ., April 15, 1893. Lancet, ditto. (Shef. Med. Chir. Soc., March 23.) Shef. Med. Journ., July, 1893.	F.	68	Well marked.	2 months.	Thyroid extract by mouth.	Very considerably improved.	
84	Mr. J. F. Woods, of Hoxton House Asylum, London.	Brit. Med. Journ., May 6, 1893. (Shown at Hæmæterian Soc., April 12, 1893.) See present paper.	F.	32	15 months.	$\frac{1}{4}$ months: Jan. 20, 1893—June 8, 1893. 6 months: Aug. 3, 1893.	At first hypodermic injections of extract twice a week; afterwards powders by the month (1-6th of gland). More recently a "thyroid mixture."	"Began to improve on the third day." "Lost most of physical signs of myxœdema, and mentally bright and talkative."	

85*	Dr. Hingston Fox, of London.	F.	42	1-2 years.	April 12, 1893.	Grude sleep's thyroid glands, one weekly, eaten at two days' interval. 11 glands in all. Cooked thyroid glands.	"Apparently cured." "Mentally the change is also great." "Much improved."	Nil.
86	Dr. F. J. Smith, of London.	F.	59	3 years.				After a meal of 10 thyroids (taken accidentally) there was nausea, rapid pulse and acute dermatitis of hands, with subsequent peeling of entire skin of hands.
87	Dr. Saundby, of Birmingham.	F.	57		4 months, Nov. 30, 1892.	Administration of thyroid glands. At first feeding with half a lamb's thyroid daily (16 half glands between Nov. 30 and Dec 31) Brady and Martin's thyroid extract given hypodermically. Thyroid glands, one lobe daily chopped up and made into sandwiches.	"No manifest improvement."	Great complaints of pains.
88*	Mr. C. J. B. Johnson, of Birmingham.	F.	49	3 years.	7 weeks.	Raw thyroid, commencing with $\frac{1}{2}$ lobe. Now a $\frac{1}{4}$ of lobe. Thyroid gland taken as an article of food.	"The patient had lost all the characters of myxedema, and might have been shown as an example of Grave's disease." "Distinct improvement was discernible on the third day." Now "felt a new woman." "Improved wonderfully."	Headaches (relieved by nitro-glycerine).
89*	Dr. Lawrie, of Weymouth.	?						
90	Ditto.							
91*	Mr. A. Maude, of Westerham.	F.	60	4 years.	2 months: Dec. 10, 1892—Feb. 7, 1893. 8 months: Aug. 5, 1893.	Ditto Raw sleep's thyroids given pounded once a week for 2 months. After interval of another two months took tablets daily for 10 days.	Ditto. "Mental state much improved. Skin warm and moist."	Fainting; collapsed after taking 2 thyroids. Headache, faintness, and general discomfort.

See present paper.

TABLE Ib (Continued).—Cases of Myxœdema Treated by the Ingestion of Thyroid Preparations.

No.	Observer.	Reference.	Sex.	Age.	Duration of Myxœdema.	Length of Treatment when Reported.	Dosage and Method of Administration.	Result.	Ill-Effects.
92*	Mr. F. C. W. Hounsell, of Chudleigh.	Brit. Med. Journ., May 6, 1893. (South Western Branch B. M. A., April 13, 1893.)	F.	65	2 years.	1½ months: June—Aug. 5, 1893.	Half sheep's thyroid twice a week, served on toast at lunch, 10 administrations in all.	"Most satisfactory; all symptoms completely disappeared."	Some trivial aching pains in limbs simulating the pains of influenza, which soon wore off. Some nausea.
93*	Dr. Wilkin Stabb, of Torquay.	Vitto. See present paper.	F.	22	3 years.	7½ months: Dec. 20, 1892—Aug. 5, 1893.	Thyroid feeding, at first one lobe twice a week, minced and with portwine. Now takes powders = 1-3rd gland once a week.	"Striking character." "Seems now to be a healthy person."	Increased lassitude at first.
94	Dr. Hooper May, of London.	Brit. Med. Journ., May 27, 1893. (Shown at Metropolitan Co.'s Br. B. M. A., May 17.)	F	26		11 weeks.	Thyroid extract and tablets.	"Remarkable improvement in all her symptoms."	
95	Mr. Cecil F. Beadles (H. G. Shaw), of Colney Hatch Asylum.	Present paper.	F	45	"Early."	6 weeks: Oct.—Sept., 1892.	Raw glands for six weeks on 8 different occasions, at intervals of one or two days.	Slight improvement in mind and body.	Headache and giddiness after early powders; violent pains in abdomen and loss of consciousness after last three.
96	Mr. Cecil F. Beadles (E. Bryan).	Ditto.	M.	33	6 years.	6 months: Feb. 25. Aug., 1893.	Thyroid powders representing the one-sixth part of sheep's thyroid every other day, then every fourth day. More recently 5 grains once or twice a week.	Great improvement.	Weakness at first. Vomiting with high temp. once.

97	Dr. H. C. Marr, of Woodilee Asylum, Lenzie.	F. Ghs. Med. Journ., Aug., 1893.	51	9 years.	4 months: Feb. 18, 1893—July, 1893.	Quarter of sheep's gland, and after 3 weeks a glycerine extract use (20zs. = 1 whole thyroid) 5i. thrice daily.	"Gradually improved under treatment both mentally and bodily."	Severe headache; muscular pains over body; liability to get excited on 4 occasions.
98	Mr. Edgar Duke, of St. Leonards-on-Sea.	F. Birmingham Med. Review, Aug., 1893.	42	1½ years.	3 months: Feb., 1893—June 1, 1893.	Powders representing 1-3rd of gland given every other day, and then daily; 42 in all.	"Mentally active and physically much more so than formerly. There is marked general improvement."	
99	Dr. J. Putnam, of Boston, U.S.A.	F. American Journ. Med. Sc., Aug., 1893.	48	13 years.	10 months: June 1, 1892—March, 1893.	For first five months tri-weekly injections of a glycerine extract of sheep's thyroid. Then for 2 months thyroids by mouth, 5 or 6 lobes a week. Since Jan. used powders, capsules or pills.	"Slight improvement by an end of one week. In course of six weeks the improvement attracted the attention of everyone. Now she is still anemic, but as regards any distinct myxedema she is practically well."	Languor; nausea; thumping in head; dizziness after both injections and feeding. Itching of skin recently.
100	Ditto.	Ditto.	55	2 years.	Feb. 15, 1893—?	Thyroid powders, 15 grs. every second day, which is equivalent of one lobe of sheep's thyroid.	"Not only the myxedema, but also the anæmia has for the most part disappeared."	

* See foot note on page 527.

TABLE II.—Cases of Sporadic Cretinism Treated by Means of the Thyroid Gland.

No.	Observer.	Reference.	Sex.	Age.	Treatment Adopted.	Result.
1	Dr. John Lockhart Gibson, of Brisbane.	Brit. Med. Journ., Nov. 12, 1892, and Jan. 14, 1893. (Intercolonial Medical Congress, Australia, Sept. 28, 1892.)	M.	6 yrs.	Grafting of thyroid of lamb in nuchal region. July 20, 1891. One year after first operation, grafting of thyroid of lamb intra-peritoneal, May 20, 1892.	Six months after "very marked and steady improvement." Relapsed somewhat. Sept. 4, 1892—"Fairly intelligent-looking baby boy." "Cured his myxedema and lessened his cretinism."
2	Dr. Attock, of Edinburgh.	Edin. Med. Journ., May, 1893. Brit. Med. Journ., Feb. 25, 1893. (Edin. Med. Chir. Soc., Feb. 16, 1893.)	M.	?	Implantation of thyroid on three occasions, by Mr. Caird.	Greatly improved.
3	Dr. V. Robin, of Lyons.	Brit. Med. Journ. (Eplcome), Sept. 10, 1892. Lyon. Med., Aug. 7, 1892.	?	7 yrs.	Injectations of fresh thyroid juice daily. Supplemented by grafting.	Improvement was immediate and great. Operation itself successful.
4	Dr. William Robinson, of Darlington.	Brit. Med. Journ., Jan. 7, 1893. Private Letter, August 10, 1893.	F.	10½ yrs.	Weekly hypodermic injections of thyroid extract, beginning with 6 and increasing to 30 minims, for two months. After which one thyroid gland was eaten weekly for several weeks.	"Slightly improved."
5	Dr. John Thompson (for Dr. W. H. Miller), of Edinburgh.	Edin. Med. Journ., May, 1893. Brit. Med. Journ. and Lancet, Feb. 25, 1893. (Edin. Med. Chir. Soc., Feb. 16, 1893.)	F.	4 yrs.	Feeding with thyroids since Dec. 24th, 1892. At first ½ and afterwards ¼ of gland twice a week.	"Wonderful success. After 3½ weeks was much better." "Much more intelligent."
6	Ditto	"	M.	18 yrs.	Quarter of sheep's thyroid twice a week, by mouth. Dec. 25, 1892, to April 12, 1893.	"His appearance has wonderfully improved." Mentally he is distinctly brighter.

7	Dr. E. Carmichael, * of Edinburgh.	F.	9 yrs.	Hypodermic injections of thyroid extract between April and October. At first nix. twice a week, later reduced to nix. weekly and then every second week with occasional intervals of four weeks.	"After the first few injections the appearance of the child had completely changed. "As week by week passed some mark of improvement was always seen. In Oct. the child began to walk."
				Feeding with raw thyroids, October to March. Half lobe per week at first, after two weeks 1 lobe per week. Lately 1½ lobes given. Administered in cold beef tea. Total duration of treatment, 11 months.	"Marked improvement in intelligence was seen."
8	Dr. Vermehren, of Copenhagen.	F.	29 yrs.	Administration of thyroïdin (powder, obtained by precipitating a glycerine extract with alcohol).	With success.
9	Ditto	?	?	Under similar treatment.	Promises to give a similar result.
10	Dr. Byrom Bramwell, of Edinburgh.	F.	8½ yrs.	Thyroid feeding for five weeks.	"The mental condition has become completely transformed." Grown an inch during the five weeks.
11	Mr. A. G. Francis, of Hull.	F.	36 yrs.	Under thyroid treatment.	"Is improving immensely" (Aug., 1893).

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1875. Haughton, Rev. Professor S., School of Physic, Trinity Coll., Dublin, M.D.T.C.D., D.C.L. Oxon, F.R.S. (*Hon. Member.*)
1891. Havelock, John G., M.B., C.M. Edin., Sen. Assist. Medical Officer, Montrose Royal Asylum.
1890. Hay, Frank, M.B., C.M., Assistant Medical Officer, James Murray's Royal Asylum, Perth.
1868. Hearder, George J., M.D. St. And., L.R.C.S. Edin., Medical Superintendent, Joint Counties Asylum, Carmarthen.
1885. Henley, E. W., L.R.C.P., County Asylum, Gloucester.
1877. Hetherington, Charles, M.B., Med. Supt., District Asylum, Londonderry, Ireland.
1877. Hewson, R. W., L.R.C.P. Ed., Med. Supt., Coton Hill, Stafford.
1891. Heygate, William Harris, M.R.C.S. Eng., L.S.A., Cranmere, Cosham, Hants.
1879. Hicks, Henry, M.D. St. And., M.R.C.S. Eng., F.R.S., F.G.S., Hendon Grove House, Hendon, Middlesex.
1879. Higgins, Wm. H., M.B., C.M., Med. Supt., County Asylum, Leicester.
1882. Hill, Dr. H. Gardiner, Medical Superintendent, Middlesex County Asylum, Tooting.
1857. Hills, William Charles, M.D. Aber., M.R.C.S. Eng., Thorpe-St. Andrew, near Norwich.
1889. Hind, Hy. Joseph, M.R.C.S. and L.S.A., Assistant Medical Officer, 3, Cambridge Park, Twickenham.
1871. Hingston, J. Tregelles, M.R.C.S. Eng., Medical Superintendent, North Riding Asylum, Clifton, York.

1881. Hitchcock, Charles Knight, M.D., Bootham Asylum, York.
1892. Holmes, James, M.D. Edin., Overdale Asylum, Whitefield, Lancashire.
1863. Howden, James C., M.D. Edin., Medical Superintendent, Montrose Royal Lunatic Asylum, Sunnyside, Montrose.
1881. Hughes, C. H., M.D., St. Louis, Missouri, United States. (*Hon. Member.*)
1857. Humphry, J., M.R.C.S. Eng., Med. Sup., County Asylum, Aylesbury, Bucks.
1888. Hyslop, Theo. B., M.B., C.M. Edin., M.P.C., Asst. Med. Officer, Bethlem Royal Hospital, S.E.
1882. Hyslop, James, M.D., Pietermaritzburg Asylum, Natal, S. Africa.
1865. Iles, Daniel, M.R.C.S. Eng., Resident Medical Officer, Fairford House Retreat, Gloucestershire.
1871. Ireland, W. W., M.D. Edin., Mavisbush, Polton, Midlothian.
1877. Isaac, J. B., M.D. Queen's Univ., Irel., Assist. Med. Officer, Broadmoor, near Wokingham.
1866. Jackson, J. Hughlings, M.D. St. And., F.R.C.P. Lond., Physician to the Hospital for Epilepsy and Paralysis, &c.; 3, Manchester Square, London, W.
1858. Jamieson, Robert, M.D. Edin., L.R.C.S. Edin., Royal Asylum, Aberdeen.
1860. Jepson, Octavius, M.D. St. And., M.R.C.S. Eng., Elmfield, Newlands Park, Sydenham, S.E.
1882. Jeram, J. W., L.R.C.P., Hambledon, Cosham, Hants.
1893. Johnston, Gerald Herbert, L.R.C.S. and P. Edin., Assistant Medical Officer, North Riding Asylum, Clifton, Yorks.
1890. Johnston, John McCubbin, M.B., C.M., M.P.C., Town's Hospital, Parliamentary Road, Glasgow.
1878. Johnstone, J. Carlyle, M.D., C.M., Medical Superintendent, Roxburgh District Asylum, Melrose.
1866. Jones, Evan, M.R.C.S. Eng., Ty-mawr, Aberdare, Glamorganshire.
1880. Jones, D. Johnson, M.D. Edin., Senior Assistant Medical Officer, Banstead Asylum, Surrey.
1893. Jones, R., M.D. Lond., B.S., F.R.C.S., Medical Superintendent, London County Asylum, Claybury.
1879. Kay, Walter S., M.D., Medical Superintendent, South Yorkshire Asylum, Wadsley, near Sheffield.
1886. Keay, John, M.B., Med. Supt., Mavisbank, Polton, Midlothian.
1893. Kershaw, Herbert Warren, M.R.C.S. Eng., L.R.C.P. Lond., Senior Assistant Medical Officer, North Riding Asylum, Clifton, Yorks.
1880. Kornfeld, Dr. Herman, Grottkau, Silesia, Germany. (*Corresponding Member.*)
1889. Kowalewsky, Professor Paul, Kharkoff, Russia. (*Corresponding Member.*)
1881. Krafft-Ebing, R. v., M.D., Vienna. (*Hon. Member.*)
1866. Laehr, H., M.D., Schweizer Hof, bei Berlin, Editor of the "Zeitschrift für Psychiatrie." (*Hon. Member.*)
1892. Lawless, Dr. Geo. Robert, A.M.O., District Asylum, Sligo.
1870. Lawrence, A., M.D., County Asylum, Chester.
1890. Lawson, Robert, M.D., Deputy Commissioner in Lunacy, Edinburgh.
1883. Layton, Henry A., L.R.C.P. Edin., Cornwall County Asylum, Bodmin.
1883. Legge, R. J., M.D., Assist. Med. Officer, County Asylum, Derby.
1887. Lentz, Dr., Asile d'Aliénés, Tournai, Belgique. (*Hon. Member.*)
1858. Lewis, Henry, M.D. Brux., M.R.C.S. Eng., L.S.A., late Assistant Medical Officer, County Asylum, Chester; West Terrace, Folkestone, Kent.
1879. Lewis, W. Bevan, L.R.C.P. Lond., Med. Supt., West Riding Asylum, Wakefield.
1863. Ley, H. Rooke, M.R.C.S. Eng., Medical Superintendent, County Asylum, Prestwich, near Manchester.
1859. Lindsay, James Murray, M.D. St. And., F.R.C.S. and F.R.C.P. Edin., Med. Supt., County Asylum, Mickleover, Derby. (*PRESIDENT, 1893.*)
1883. Lisle, S. Ernest de, L.K.Q.C.P., Three Counties Asylums, Stotfold, Baldock.
1890. Little, Arthur Nicholas, M.B. Lond., M.R.C.S., L.S.A., Assistant Medical Officer, Holloway Sanatorium, Virginia Water.
1888. Little, W. Maxwell, M.D. Edin., Assist. Med. Off., County Asylum, Thorpe, Norwich.
1888. Lofthouse, Arthur, M.R.C.S., etc., Assist. Med. Off., County Asylum, Nottingham.

1872. Lyle, Thos., M.D.Glas., 34, Jesmond Road, Newcastle-on-Tyne.
 1890. Lyons, Algernon Wilson, M.B.Lond., M.R.C.S., L.R.C.P., 80, St. George's Road, Eccleston Square, London, S.W.
 1880. MacBryan, Henry C., Kingsdown House, Box.
 1884. Macdonald, P. W., M.D., C.M., Med. Supt., County Asylum, near Dorchester, Dorset.
 1893. Macevoy, Henry John, M.D. Lond., 41, Buckley Road, Brondesbury, London, N.W.
 1883. Macfarlane, W. H., New Norfolk Asylum, Tasmania.
 1891. Mackenzie, Henry J., M.B., C.M.Edin., M.P.C., Assistant Medical Officer, The Retreat, York.
 1886. Mackenzie, J. Cumming, M.B., C.M., M.P.C., Medical Superintendent, District Asylum Inverness.
 * Mackintosh, Donald, M.D. Durham and Glas., L.F.P.S.Glas., 10, Lancaster Road, Belsize Park, N.W.
 1886. Maclean, Allan, L.R.C.S. Ed., Harpenden Hall, Herts.
 1873. Macleod, M. D., M.B., Med. Superintendent, East Riding Asylum, Beverley, Yorks.
 1882. Macphail, Dr. S. Rutherford, Derby Borough Asylum, Rowditch, Derby.
 1872. Major, Herbert C., M.D., 114, Manningham Lane, Bradford, Yorks.
 * Manley, John, M.D. Edin., M.R.C.S. Eng., Highfield, Tulse Hill, S.W.
 1871. } Manning, Frederick Norton, M.D. St. And., M.R.C.S. Eng., Inspector of
 1884. } Asylums for New South Wales, Sydney. (*Hon. Member.*)
 1865. Manning, Harry, B.A. London, M.R.C.S., Laverstock House, Salisbury.
 1871. Marsh, J. Wilford, M.R.C.S. Eng., L.S.A., Medical Superintendent, County Asylum, Lincoln.
 * Marshall, William G., F.R.C.S., 72, Bromfelde Road, Clapham, S.W.
 1888. McAlister, William, M.B., C.M., Struan Villas, Kilmarnock.
 1886. McCreery, James Vernon, L.R.C.S.I., Medical Superintendent, New Lunatic Asylum, Melbourne, Australia.
 1870. McDowall, T. W., M.D. Edin., L.R.C.S.E., Medical Superintendent, Northumberland County Asylum, Morpeth.
 1876. McDowall, John Greig, M.B. Edin., Medical Superintendent, West Riding Asylum, Menston, near Leeds.
 1882. McNaughtan, John, M.D., Med. Supt., Criminal Lunatic Asylum, Perth.
 1886. Macpherson, John, M.B., M.P.C., Medical Superintendent, Stirling Asylum, Larbert.
 1890. Menzies, W. F., M.D., B.Sc.Edin., Senior Assistant Medical Officer, County Asylum, Rainhill.
 1891. Mercier, Charles A., M.B.Lond., F.R.C.S.Eng., Lecturer on Insanity, Westminster Hospital; Flower House, Southend, Catford, S.E.
 1877. Merson, John, M.D. Aberd., Medical Superintendent, Borough Asylum, Hull.
 1871. Merrick, A. S., M.D. Qu. Uni. Irel., L.R.C.S. Edin., Medical Superintendent, District Asylum, Belfast, Ireland.
 1867. Meyer, Ludwig, M.D., University of Göttingen. (*Hon. Member.*)
 1871. Mickle, Wm. Julius, M.D., F.R.C.P. Lond., Med. Superintendent, Grove Hall Asylum, Bow, London.
 1867. Mickley, George, M.A., M.B. Cantab., Medical Superintendent, St. Luke's Hospital, Old Street, London, E.C.
 1893. Middlemass, James, M.B., C.M., B.Sc. Edin., Junior Assistant Physician, Royal Edinburgh Asylum.
 1892. Middleton, Dr., District Asylum, Mullingar, Ireland
 1881. Mierzejewski, Prof. J., Medico-Chirurgical Academy, St. Petersburg. (*Hon. Member.*)
 1883. Miles, Geo. E., M.R.C.S., Callan Asylum, Sydney, N.S.W.
 1893. Mills, John, M.B., B.Cu., and Diploma in Mental Diseases, Royal University of Ireland, Assistant Medical Officer, District Asylum, Ballinasloe.
 1887. Miller, Alfred, M.B. and B.C.Dub., Medical Superintendent, Hatton Asylum, Warwick.
 1866. } Mitchell, Sir Arthur, M.D. Aberd., LL.D., K.C.B., Commissioner in Lunacy
 1871. } for Scotland; 34, Drummond Place, Edinburgh. (*Hon. Member.*)
 1881. Mitchell, R. B., M.D., Med. Supt., Midlothian District Asylum.
 1885. Molony, John, F.K.Q.C.P., Med. Supt., St. Patrick's Hospital, Dublin.

1878. Moody, James M., M.R.C.S. Eng., L.R.C.P. and L.M. Edin., Med. Supt., County Asylum, Cane Hill, Surrey.
1885. Moore, E. E., M.B. Dub., M.P.C., Medical Superintendent, District Asylum, Letterkeuny, Ireland.
1891. Moore, George, J.P. M.D., M.R.C.S., Medical Superintendent, Jersey Lunatic Asylum.
1886. Morel, M. Jules, M.D., Hospice Guislain, Ghent. (*Corresponding Member.*)
1892. Morrison, Cuthbert S., L.K.C.P. and S. Edin., Assistant Medical Officer, County and City Asylum, Burghill, Hereford.
1880. Motet, M., 161, Rue de Charonne, Paris. (*Hon. Member.*)
1862. Mould, George W., M.R.C.S. Eng., Medical Superintendent, Royal Lunatic Hospital, Cheadle, Manchester. (*PRESIDENT, 1880.*)
1878. Muirhead, Claud. M.D., F.R.C.P. Edin., 30, Charlotte Square, Edinburgh.
1867. Mundy, Baron Jaromir, M.D. Würzburg, Professor of Military Hygiene, Universität, Vienna. (*Hon. Member.*)
1893. Murchison, Finlay, M.A., M.B., C.M. Edin., Resident Proprietor, Wyke House, Isleworth, Middlesex.
1893. Murdoch, James, William Aitken, M.B., C.M. Glas., Medical Superintendent, Berks County Asylum, Wallingford.
1878. Murray, Henry G., L.K.Q.C.P. Irel., L.M., L.R.C.S.I., Assist. Med. Off., Prestwich Asylum, Manchester.
1891. Musgrove, C. D., Dr., Cliff Terrace, Kendal, Westmoreland.
1886. Myles, William Zachary, L.F.P.S., Med. Supt., District Asylum, Kilkenny.
1890. Nash, Vincent, L.K.Q.C.P., Assistant Medical Officer, Richmond District Asylum, Dublin.
1859. Needham, Frederick, M.D. St. And., M.R.C.P. Edin., M.R.C.S. Eng., Commissioner in Lunacy, 19, Whitehall Place, S.W. (*PRESIDENT, 1887.*) (*Hon. Member.*)
1880. Neil, James, M.D., M.P.C., Asst. Med. Officer, Warneford Asylum, Oxford.
1875. Newington, Alexander, M.B. Camb., M.R.C.S. Eng., Woodlands, Ticehurst.
1873. Newington, H. Hayes, M.R.C.P. Edin., M.R.C.S. Eng., Ticehurst, Sussex. (*PRESIDENT, 1889.*)
1893. Newington, John, L.S.A., Tattlebury House, Goudhurst, Kent.
1881. Newth, A. H., M.D., Haywards Heath, Sussex.
1869. Nicolson, David, M.D. and C.M. Aber., late Med. Off., H.M. Convict Prison, Portsmouth. Med. Supt., State Asylum, Broadmoor, Wokingham, Berks.
1893. Nobbs, Athelstane, M.B., C.M. Edin., Assistant Medical Officer, Northumberland County Asylum, Morpeth.
1888. Nolan, Michael J., L.K.Q.C.P.I., M.P.C., Assist. Med. Officer, Richmond Asylum, Dublin.
1892. Noott, Reginald Harry, M.B., C.M. Edin., Senior Assistant Med. Officer, Broadmoor Criminal Lunatic Asylum, Crowthorne, Wokingham.
1869. North, S. W., M.R.C.S. Eng., F.G.S., 84, Micklegate, York. Visiting Medical Officer, The Retreat, York.
1880. Norman, Conolly, F.R.C.P.I., Med. Supt., Richmond District Asylum, Dublin, Ireland. (*Hon. Secretary for Ireland.*) (*PRESIDENT-ELECT.*)
1869. Nugent, Sir John, M.B. Trin. Col., Dub., L.R.C.S. Ireland. (*Hon. Member.*)
1885. Oakshott, J. A., M.D., Assist. Med. Officer, District Asylum, Cork.
1891. O'Farrell, G. P., M.D., M.Ch. Univ. Dublin, Inspector of Lunatics in Ireland, 19, Fitzwilliam Square, Dublin. (*Hon. Member.*)
1892. O'Flaherty, Dr., District Asylum, Downpatrick, Ireland.
1892. O'Mara, Dr., District Asylum, Limerick, Ireland.
1881. O'Meara, T. P., M.B., Med. Supt., District Asylum, Carlow, Ireland.
1886. O'Neill, E. D., L.K.Q.C.P., Med. Supt., The Asylum, Limerick.
1868. Orange, William, M.D. Heidelberg, F.R.C.P. Lond., C.B., 12, Lexham Gardens, London. (*PRESIDENT, 1883.*)
1893. Osburne, Cecil A. P., F.R.C.S. Edin., L.R.C.P. Edin., Surgeon to the Admiralty, Hythe, The Oaks, Hythe, Kent.
1890. Oswald, Landel R., M.B., M.P.C., Senior Assistant Medical Officer, Glasgow Royal Asylum, Gartnavel.
- * Palmer, Edward, M.D. St. And., M.R.C.P. Lond., M.R.C.S., 87, Harcourt Terrace, London, S.W.

1886. Parant, M. Victor, M.D., Toulouse. (*Corresponding Member.*)
1892. Patterson, Arthur Edward, M.B., C.M.Aber., Assistant Medical Officer, City of London Asylum, Dartford.
1872. Patton, Alex., M.B., Resident Medical Superintendent, Farnham House, Finglas, Co. Dublin.
- * Paul, John Hayball, M.D. St. And., M.R.C.P. Lond., F.R.C.P. Edin.; Camberwell Terrace, London, S.E. (*Treasurer.*)
1889. Peacock, Dr., L.R.C.P. and L.M. Edin., M.R.C.S. and L.S.A., Lond., Resident Medical Officer and Proprietor, Ashwood House, Kingswinford, Dudley, Staffordshire.
1881. Peeters, M., M.D., Ghcel, Belgium. (*Hon. Member.*)
1870. Peddie, Alexander, M.D. Edin., F.R.C.P. Edin., F.R.S. Edin., 15, Rutland Street, Edinburgh.
1873. Pedler, George H., L.R.C.P. Lond., M.R.C.S. Eng., 6, Trevor Terrace, Knightsbridge, S.W.
1893. Perceval, Frank, M.R.C.S. Eng., L.R.C.P. Lond., Assistant Medical Officer, County Asylum, Prestwich, Manchester.
1874. Petit, Joseph, L.R.C.S.I., Med. Supt., District Asylum, Sligo.
1878. Philipps, Sutherland Rees, M.D., C.M. Qu. Univ. Irel., F.R.G.S., St. Anne's Heath, Chertsey.
1875. Philipson, George Hare, M.D. and M.A. Cantab., F.R.C.P. Lond., 7, Eldon Square, Newcastle-on-Tyne.
1891. Pierce, Bedford, M.D. Lond., M.R.C.P., Medical Superintendent, The Retreat, York.
1888. Pietersen, J. F. G., M.R.C.S., Ashwood House, Kingswinford, near Dudley, Stafford.
1886. Pilkington, F. W., L.R.C.P. Lond., Adlington, Lancashire.
1871. Pim, F., Esq., M.R.C.S. Eng., L.K. and Q.C.P. Ireland, Med. Supt., Palmerston, Chapelizod, Co. Dublin, Ireland.
1890. Pitcairn, John James, L.R.C.P., M.R.C.S., M.P.C., Assistant Surgeon, H.M. Prison, Holloway.
1873. Pitman, Sir Henry A., M.D. Cantab., F.R.C.P. Lond., Registrar of the Royal College of Physicians, Enfield, Middlesex. (*Hon. Member.*)
1878. Platt, Dr., St. James' Lodge, West End Lane, West Hampstead, N.W.
1877. Plaxton, Joseph Wm., M.R.C.S., L.S.A. Eng., Lunatic Asylum, Kingston, Jamaica.
1889. Pope, George Stevens, L.R.C.P. & S. Edin., L.F.P. & S. Glas., Assistant Medical Officer, Cane Hill Asylum, Purley, Surrey.
1876. Powell, Evan, M.R.C.S. Eng., L.S.A., Medical Superintendent, Borough Lunatic Asylum, Nottingham.
1891. Price, Arthur, M.R.C.S., L.S.A., M.P.C., Medical Officer H.M. Prison, Birmingham, 2, Handswoth New Road, Birmingham.
1875. Pringle, H. T., M.D. Glasg., Medical Superintendent, County Asylum, Bridgend, Glamorgan.
1892. Rainsford, Frederick Edward, M.B. Dublin, Second Assistant Medical Officer, City and County Lunatic Asylum, Fishponds, near Bristol.
1870. Rayner, Henry, M.D. Aberd., M.R.C.S. Eng., 2, Harley Street, London, W., and Upper Terrace House, Hampstead, London, N.W. (*PRESIDENT, 1884.*) (*Late General Secretary.*)
1889. Raw, Nathan, M.D., M.P.C., Infirmary and Dispensary, Bolton.
1893. Rawes, William, M.B. Durh., F.R.C.S. Eng., Assistant Medical Officer, St. Luke's Hospital, London.
1890. Régis, Dr. E., 54, Rue Huguerie, Bordeaux. (*Corresponding Member.*)
1887. Reid, William, M.D., Physician Superintendent, Royal Asylum, Aberdeen.
1891. Renton, Robert, M.B., C.M. Edin., M.P.C., Montague Lawn, London Road, Cheltenham.
1886. Revington, Geo., M.D. and Stewart Scholar Univ. Dublin, M.P.C., Med. Superintendent, Central Criminal Asylum, Dnndrum, Ireland.
1889. Richards, Joseph Peeke, M.R.C.S., L.S.A., 6, Freeand Road, Easing, W.
1869. Richardson, Sir B. W., M.D. St. And., F.R.S., 25, Manchester Square, W. (*Hon. Member.*)
1891. Ridley, John Brooke, M.B., C.M. Edin., Assistant Medical Officer, Darent Asylum, Dartford.
1890. Ritti, Dr. J. M., Maison Nationale de Charenton, St. Maurice, Seine, France. (*Corresponding Member.*)

1893. Rivers, William H. Rivers, M.D. Lond., Clinical Assistant, Bethlem Royal Hospital, London, S.E.
1871. Robertson, Alexander, M.D. Edin., 16, Newton Terrace, Glasgow.
- * Robertson, Charles A. Lockhart, M.D. Cantab., F.R.C.P. Lond., F.R.C.P. Edin., Lord Chancellor's Visitor, Gunsreen, The Drive, Wimbledon. (*General Secretary, 1855-62.*) (*Editor of Journal, 1862-70.*) (*PRESIDENT, 1867.*) (*Hon. Member.*)
1887. Robertson, G. M., M.B., C.M., M.P.C., Medical Superintendent, Perth District Asylum, Murthbley.
1876. Rogers, Edward Coulton, M.R.C.S. Eng., L.S.A., Co. Asylum, Fulbourn, Cambridge.
1859. Rogers, Thomas Lawes, M.D. St. And., M.R.C.P. Lond., M.R.C.S. Eng., Easibank, Court Road, Eltham, Kent. (*PRESIDENT, 1874.*)
1879. Ronaldson, J. B., L.R.C.P. Edin., Medical Officer, District Asylum, Haddington.
1879. Roots, William H., M.R.C.S., Canbury House, Kingston-on-Thames.
1860. Rorie, James, M.D. Edin., L.R.C.S. Edin., Medical Superintendent, Royal Asylum, Dundee. (*Late Hon. Secretary for Scotland.*)
1890. Rosenblum, Edward Emerson, M.B., B.S. Melbourne, Senior Assistant Medical Officer, Lunatic Asylum, Yarra Bend, Melbourne.
1888. Ross, Chisholm, M.B. Ed., M.D. Sydney, Gladesville Asylum, New South Wales.
1886. Roussel, M. Théophile, M.D., Sénateur, Paris. (*Hon. Member.*)
1884. Rowe, E. L., L.R.C.P. Ed., Medical Superintendent, Borough Asylum, Ipswich.
1883. Rowland, E. D., M.D., C.M. Edin., the Public Lunatic Asylum, Berbice, British Guiana.
1877. Russell, A. P., M.B. Edin., The Lawn, Lincoln.
1883. Russell, F. J. R., L.K.Q.C.P. Irel., Tramore, St. Leonards-on-Sea.
1892. Rutledge, Dr., District Asylum, Londonderry, Ireland.
1866. Rutherford, James, M.D. Edin., F.R.C.P. Edin., F.F.P.S. Glasgow, Physician Superintendent, Crichton Royal Institution, Dumfries. (*Hon. Secretary for Scotland, 1876-86.*)
1887. Rutherford, W., M.D., Consulting Physician, Ballinasloe District Asylum, Ireland.
1889. Ruxton, William Ledington, M.D. and C.M., Assistant Medical Officer, South Yorkshire Asylum, Wadsley, Sheffield.
1879. Sankey, H. R., M.B., Boreatton Park, Shrewsbury.
- * Sankey, R. Heurtley H., M.R.C.S. Eng., Medical Superintendent, Oxford County Asylum, Littlemore, Oxford.
1891. Saunders, Charles Edwards, M.D. Aber., M.R.C.P. Lond., Medical Superintendent, Haywards Heath Asylum, Sussex.
1873. Savage, G. H., M.D. Lond., 3, Henrietta Street, Cavendish Square, W. (*Editor of Journal.*) (*PRESIDENT, 1886.*)
1862. Schofield, Frank, M.D. St. And., M.R.C.S., Medical Supt., Camberwell House, Camberwell.
1887. Schüle, Heinrich, M.D., Illenau, Baden, Germany. (*Hon. Member.*)
1884. Scott, J. Walter, M.R.C.S., M.P.C., Highfield, Tulse Hill, S.W.
1869. Scowcroft, Walter, M.R.C.S., Senior Assistant Medical Officer, Royal Lunatic Hospital, Chaddle.
1880. Seccombe, Geo., L.R.C.P. L., The Colonial Lunatic Asylum, Port of Spain, Trinidad, West Indies.
1879. Seed, Wm., M.B., C.M. Edin., The Poplars, 110, Waterloo Road, Ashton-on-Ribble, Preston.
1889. Sells, Charles John, L.R.C.P., M.R.C.S., L.S.A., Honorary Medical Officer, Royal Surrey County Hospital; White Hall, Guildford.
1885. Sells, H. T., 2, London Road, Northfleet, Kent.
1881. Semal, M., M.D., Mous, Belgium. (*Hon. Member.*)
1893. Semelaigne, René, Dr., Secrétaire des Séances de la Société Médico-Psychologique de Paris, Avenue de Madrid, Neuille, Seine, Paris. (*Corresponding Member.*)
1882. Seward, W. J., M.D., Med. Superintendent, Colney Hatch, Middlesex.
1891. Shaw, John Custance, M.R.C.S. Eng., L.R.C.P. Lond., Assistant Medical Officer, Hull Borough Asylum.

1867. Shaw, Thomas C., M.D. Lond., F.R.C.P. Lond., Medical Superintendent, Middlesex County Asylum, Banstead, Surrey.
1880. Shaw, James, M.D., Donald House, Kensington, Liverpool.
1891. Shaw, Harold B., B.A., M.B., B.S., D.P.H. Camb., Senior Assistant Medical Officer, County Asylum, Fareham, Hants.
1882. Sheldon, T. S., M.B., Med. Supt., Cheshire County Asylum, Parkside, Macclesfield.
1886. Sherrard, C. D., M.R.C.S., Avalon, Eastbourne.
1877. Shuttleworth, G. E., M.D. Heidelberg, M.R.C.S. and L.S.A. Eng., B.A. Lond., late Medical Superintendent, Royal Albert Asylum, Lancaster; Ancaster House, Richmond.
1880. Sibbald, John, M.D. Edin., F.R.C.P. Ed., M.R.C.S. Eng., Commissioner in Lunacy for Scotland, 3, St. Margaret's Road, Edinburgh. (*Editor of Journal, 1871-72.*) (*Hon. Member.*)
1889. Simpson, Samuel, M.B. and M.C.H. Dublin, M.P.C., Northumberland House, Green Lanes, Finsbury Park, N.
1888. Sinclair, Eric, M.D., Med. Supt., Gladesville Asylum, New South Wales.
1870. Skae, C. H., M.D. St. And., Medical Superintendent, Ayrshire District Asylum, Glengall, Ayr.
1891. Skeen, James Humphrey, M.B., C.M. Aber., Assistant Physician, Stirling District Asylum, Larbert.
1858. Smith, Robert, M.D. Aberd., L.R.C.S. Edin., Medical Superintendent, County Asylum, Sedgfield, Durham.
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Anderson, John.
Anderson, A. W.
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Armour, E. F.
Attegalle, T. W. S.
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 Thompson, George Matthew.
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 Umney, W. F.
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 Waterston, Jane Elizabeth.
 Watson, George A.
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 § Wilson, G. R.
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 Wilson, Robert.
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* To whom the Gaskell Prize (1887) was awarded.

† To whom the Gaskell Prize (1889) was awarded.

‡ To whom the Gaskell Prize (1890) was awarded.

§ To whom the Gaskell Prize (1892) was awarded.

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